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ABSTRACT

This report contains six papers on preparing business education students and teachers to meet projected job needs. The papers, presented at four meetings of the New York Statewide Business Education Review Committee, address four major topics: (1) identifying projected skills, attitudes, and knowledge expected of entry level business employees in the 1980s and 1990s, (2) developing curricular competencies, (3) implementing curricular organization and competencies, and (4) determining the place of personal use skills in business education. In the first paper, Marla S. Batchelder predicts the employee skills big business will need in the next twenty years. In the second paper Gloria Ortner Chapman examines recent research to forecast needed aptitudes and skills and suggest ways schools can prepare students for tomorrow. George Meyer, in the third paper, predicts future educational requirements for entry level government workers. In the paper following, Gerald W. Faust proposes a method for extending the development of competency-based business education curriculum for New York State. The fifth paper, by Fred S. Cook and Rita C. Richey, introduces a process to develop and implement a New York State high school business education program. In the final paper, Hobard H. Conover looks at the present and future of New York's business teacher education. An appendix contains Detroit Public Schools' teacher-developed competencies/objectives. (CSS)

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ED163202

CONTINUATION OF FUTURING THE BUSINESS EDUCATION CURRICULUM NEEDS

Institute for Research and Development
in Occupational Education
Center for Advanced Study in Education
The Graduate School and University Center
of the City University of New York

in cooperation with the
Division of Occupational Education Supervision
The New York State Education Department
University of the State of New York

CASE #12-78
July 1978

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FOREWORD

The Institute for Research and Development in Occupational Education (IRDOE) has had a continuing interest in the impact that changes in technology have on education in general, and on business and occupational education in particular. An earlier IRDOE study in the bookkeeping area made recommendations regarding desirable changes in the bookkeeping curriculum to keep pace with the developing technology. It was, therefore, both a natural and welcome development for IRDOE to assist the State Education Department in facilitating the deliberations of the Statewide Committee which also intended to assess the impact that changes in technology and automation in business is likely to have on business education.

Educators have often been criticized for teaching skills that are no longer needed by students nor relevant for possible future employment. This project is clear cut evidence that educational leaders have been and are concerned with the relevance of instruction to the work world. The successful completion of the Committee's deliberations and their recommendations will do much to put New York State in the forefront of the movement in business education to make curricular offerings relevant to business needs of today and tomorrow.

Much valuable experience has been gained by IRDOE staff in the conduct of this project and it is hoped the business education community, in general, will also profit from the activities undertaken. Interested readers who share the concerns expressed in this document are invited to exchange information regarding the various issues addressed.

We look forward to assisting the Committee in completing its deliberations and making final recommendations during the next year.

Lee Cohen, Ph.D.
Director, IRDOE

ACKNOWLEDGMENT

The Institute for Research and Development in Occupational Education (IRDOE) facilitated the work of the Statewide Business Education Review Committee during the last year by assisting with the organization, evaluation, and dissemination of the various meetings held by the members. The selection of speakers for committee meetings, making meeting sites arrangements, and assisting with the travel itineraries of the participants requires the assistance of a large number of people. This project has been fortunate to receive the assistance of colleagues from IRDOE, the Center for Advanced Study in Education (CASE), and from the City University of New York in general. Many people contributed ideas, names, and suggestions to facilitate the work of organizing the committee meetings. I would hereby like to thank all of them for their help. Toni Deutsch and Howard Everson served as graduate student assistants to the Committee, and their help with the numerous details in running these meetings is gratefully acknowledged.

The work of the Institute was helped immeasurably by the continued support of the chairman of the Statewide Business Education Review Committee, Dr. Willard R. Daggett. The planning, organization, and conduct of the various meetings required close articulation with Dr. Daggett in all areas, ranging from suggestions for the selection of physical facilities to recommendations for desirable speakers. At a time when his own responsibilities during the year shifted from being an associate in the Office of Business

Education to being promoted to its Chief he nevertheless always found time to lend a hand when it was required. Without his support the organization of the meetings would have been an impossible task.

This project has enjoyed the active support, encouragement, and assistance of many individuals in the New York State Education Department, especially, Gerald Freeborne, Douglas T. Adamson, Alan Robertson and Theresa Mack. We hereby thank them all.

Sigmund Tobias
Project Director

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INTRODUCTION

Sigmund Tobias

This report summarizes the activities of the Statewide Business Education Review Committee during the year July 1, 1977 until June 30, 1978. Committee activities in the preceding year were summarized in final report #CASE 23-77.

During this year the Committee met four times at a number of locations around the State: In October in Buffalo, during January in Rochester, in March in Syracuse, and in June in Swan Lake, New York. At each of the meetings members of the Business Education community at the meeting site were invited to attend by publicizing the meeting, as well as contacting a number of individuals engaged in Business Education and asked them to notify interested professionals.

Review of Prior Activities

In the first year of its functioning the committee met twice. The first meeting, in Albany, NY, was for the purpose of attempting to assess likely changes in the business climate in the 1980's and 1990's. A variety of experts drawn from the following areas were invited: Economics, corporate planning, office business machines, futurists, labor statisticians, and business educators. Each of these experts addressed the problem of predicting what future business developments might hold for entry level business employees from their particular discipline. The speakers made oral presentations to the Committee and supplemented these with written papers which

were disseminated to the Committee, and included in the Committee's final reports.

Following the Albany meeting, the Committee convened in closed session during June 1977 in New York City for the purpose of establishing an agenda of future activities, making general recommendations regarding the structure, dates and locations of future meetings and for the purpose of dividing into sub-committees. The decisions made at that meeting were also part of the prior year's final report.

October 20th Meeting, Buffalo, NY

The specific purposes of this meeting were twofold:

1. To develop Committee recommendations regarding the competencies needed in a variety of entry level business occupations. These recommendations will become part of the Committee's final report.
2. To invite presentations by representatives from the personnel area, drawn from big business, small business, and the government sector, regarding the types of skills, attitudes, and knowledge likely to be expected of entry level employees in business during the 1980's and 1990's.

Ms. Marla Batchelder, Manager of Education and Training for the Union Carbide Corporation, presented a paper which was reflective of the projected needs of big business. Dr. Gloria O. Chapman, from the Testing and Research Office of the United States Department of Labor, had recently completed a survey of the types of aptitude and

cognitive skills required by entry level business employees. In addition she had access to data from a survey of small businesses regarding the types of employees and duties they were likely to recruit during the next year. Dr. Chapman's presentation projected the needs of small business. Mr. John Meyer, Personnel Officer, in the Suffolk County Civil Service Department, addressed the problem from the point of view of the government sector. The full text of these presentations appears in this report.

January 20th, 1978 Meeting, Rochester, NY

The purpose of this meeting was to consider appropriate curricular arrangements by which the competencies identified by the Committee in the October 20th meeting could be developed most effectively. At the Committee's requesttwo experts in the preparation of curricular materials were invited to make formal presentations. The Commiteee asked that one of these presentations be by individuals well known in the area of business education, Drs. Cook and Richey made this presentation, the other paper by an individual well known in curricular organization in general, though not necessarily identified with business education concerns, Dr. Faust fulfilled that role.

Dr. Gerald W. Faust is president of Courseware Inc. Dr. Faust, who was formally at Brigham Young University, and at the University of Texas at Austin, is well known in the general area of the preparation of instructional materials and has consulted widely with educational systems throughout the country. The second paper was a joint presentation by Dr. Fred S. Cook and Dr. Rita C. Richey, both of

Wayne State University in Detroit and of Rande Ltd. Drs. Cook and Richey are widely known in the business education community and have consulted in the area of the preparation of instructional materials for business education. The complete text of both of these presentations will be found late in this final report.

Prior to the beginning of the Rochester meeting the Committee visited the Kodak Marketing Education Center. This visit had been arranged so that the members could inspect a training and education center in the business community. In addition, the Committee had requested an opportunity to look at a major work processing installation in order to have first hand experience with respect to the types of changes one could expect word processing to have on secretarial functions in general.

March 31st Meeting, Syracuse, NY

The major purpose of the Syracuse meeting was to explore the type of instructional strategies to be considered for the implementation of the curricular organization and competencies developed previously. A number of informal presentations were made to the Committee at this meeting. One of these consisted of a panel of individuals who were administratively in charge of training entry level employees in the secretarial and clerical areas for the Kodak Corporation. Training materials used in the Kodak facility were made available to the Committee and the experiences and policies used were developed and discussed in detail.

Other presentations at this meeting were made by members of the Committee. Ms. Millie Frandino who had led an exemplary Future Business Leaders of America club at the high school in Monroe, NY, discussed how such extra-curricular involvement could enhance mastery of some part of the business education curriculum. Ms. Leona Ozimek, another member of the Committee from the North Tonowanda High School in New York, discussed the place of office simulations as a potential strategy for the business education curriculum. In addition, members of the New York State Education Department made presentations regarding the availability of computer equipment to manage the implementation and evaluation of the business education curriculum.

June 9th Meeting, Swan Lake, NY

The purpose of this meeting was to discuss the place of personal use skills in business education. Data regarding the importance and prevalance of courses devoted towards personal use skills were presented by the chairman of the Committee and the members then explored in depth the place of personal use skills education in the business education curriculum. Recommendations regarding personal use skills were formulated by the Committee and will be reported in the committee recommendations.

At this meeting the Committee also considered the place of adult education in the total business education curriculum. Data regarding the prevalance of adult business education, and the number of adults registered in business education were presented by the chairman.

Also considered was the practice of enrolling adults in the same classes taken by students in secondary education.

Finally, the Committee requested Hobart C. Conover, former Chief of the Bureau of Business Education in New York State, to report on the status of teacher education in business education. This paper is reproduced later in this final report. After a discussion regarding teacher education in this area, the members made some recommendations regarding future directions for teacher education in their area. These recommendations are to be found in the conclusions section of the paper.

THE FOG IN THE CRYSTAL BALL

THE EMPLOYEE SKILLS BIG BUSINESS NEEDS IN THE NEXT 20 YEARS

Marla S. Batchelder

Predictions of the Future

No predictions about the needs of big business over the next 20 years can be made without some look at the continuum of industrialization in this country from late 19th century to today. We have progressed from an agricultural to a post-industrial society. Only in the more recent past (since 1950) have we moved from an entrepreneurial society of many small business people to a society where only 7% of the employed men and women (including farmers) are entrepreneurs. While we cherish the Horatio Alger or Andrew Carnegie of the American dream, the structure of our working world is markedly changed.

This changed structure confronts those of us in business and education with challenging problems today. We're confronted as individual citizens of the United States and more widely as citizens of the world. We are assaulted by the impact of technology, changing values and life styles, the deficiency in energy supplies, the increasing longevity of all of us, the baby boom of 1944-60, and the rising aspirations not only of third world people but of women and minorities in this country. Another challenge is what I call the "Mythology of the Over-Educated"--perhaps some of you have heard it referred to as the "under-employed." We may speculate about what tomorrow will bring; in the meantime, we have enough trouble

keeping up with what happened yesterday. We are aware that there is a continuing and increasing growth in white collar service jobs; Director Bienstock pointed out to you in May that the number of service workers now exceeds the number of blue collar workers. We know that government continues to grow, but at a slower pace. We read that the Humphrey-Hawkins Bill will probably pass this year; unemployment of youths 16-19 is at a peak, especially among black youths; the International Monetary Fund predicts gloom in the worldwide economy; and Senator Javits predicts a worldwide depression if the economic environment does not change drastically in the next three years.

Concomitant with the concerns about availability of employment are concerns about the quality of employment. The number of unattractive jobs is increasing just as unemployment is increasing. American citizens are refusing to do the unattractive jobs; we are now hiring aliens to pick apples in New England. Part of the refusal to do the uninteresting or demeaning or strenuous jobs may be because in this country a person's worth is primarily determined, contrary to all our best intentions and good sense, by the nature of his or her work. That worth is further determined by the salary figure or the amount of income that goes with the particular job and that particular person.

Education and the World of Work

In the past, education was seen as the ladder to upward mobility, a better job and an increased sense of worth. The reason for an education was to break out of lower class status. With the overabundance

of "educated" citizens, the previously met expectations of young Americans were thwarted. Education was seen as not doing its job--education in the sense of ticketing people for employment. Society had been telling educators to prepare young men and women to be desirable commodities in the market place. Education and its institutions tended to listen and to react indiscriminately to the demand of the market place. There has also been a time lag between what industry legitimately requires or needs and what educational institutions have been able to provide. This lag seems still to be in place and accounts for the great proliferation of internal training programs to bring employees up to minimum competency levels within the organizational environment.

There continue to be complaints about the quality of education delivered. Ask any executive and he'll be glad to tell you not only that a secretary can't spell (never mind that the executive can't), but also that the recent MBA hire just doesn't have the faintest idea about how business really works. These complaints are based on fact, but they need to be considered in a broader context of education than of simply providing industry with people commodities.

Industry's contribution to the skewing of quality education usually resides in the Personnel Office. Too often, when one goes to the Personnel Office of any major firm, one will find job descriptions and requirements being written in such a way that the credentials bestowed on individuals by educational institutions are assumed wholeheartedly as representing essential requirements by industry. We do not know if the person can do the job; the credential is presumed to

certify the individual's competency. In fact, as we all know, credentials simply certify that a person spent an appropriate amount of time in a designated educational institution convincing teachers that he or she was able to master the standards specified by the current system of education.

When Personnel Offices claim their responsibility for developing appropriate, content valid job requirements as well as legitimate recruiting and selection methods, then credentials will represent only what the educational institution has defined--whether it be in terms of Carnegie Units or credits. This transmutation of credentials into qualifications is pernicious and prevalent.

Where the Gaps Are Now

What does happen when a recent high school or junior college graduate arrives at the Personnel Office of a large business to seek employment? The first thing we discover is that this person has probably not had any experience in planning for, going to, or being involved in a job interview. If the person is queried about his or her interest in a specific field or area of work, the response is usually along the lines of, "Well, I really enjoy typing and would love to be a secretary"; or, "I like to work with people. Are there any jobs in Personnel?" In essence, the person coming from the college or high school has very little accurate information about the work environment. In most cases young people interview with a firm because the business is local or a relative is already employed by that company.

After the prospective employee is hired because she/he has either

alphabetized the words correctly, passed the typing, shorthand or computer test, the employee reports for the first day on the job. He/she is working in a firm that he/she probably knows little or nothing about. The new hire may not know if he/she is employed by a service or manufacturing industry; he or she probably does not know how many stockholders there are or if it is a publicly held company. In fact, the economics or "Business and Society" course may still have absolutely no meaning for the new employee in his/her new position.

In the past, American industry has been growing and expanding and has been hiring and retaining employees whose productivity was less than desirable. Those times are changing and the young men or women who enter a large corporation today and are not able to produce and perform will be fired. Terminations will accelerate in major industries and the American economy in general will head into slow or steady growth. The constraints on our global economy today are limiting those halcyon days of expansion when young men and women would enter into the nonexempt ranks of industry and within a few years proceed up the ladder into supervisory ranks and beyond that into middle and upper management. Those days are gone. Those times have changed. The future does indeed look much different from the past.

However, the needs that industry has for people with skills and competencies have not changed noticeably and probably will not change all that markedly. What will happen, however, is that the competition for the jobs, even some boring ones, will become increasingly tight. The baby boom cohorts born between 1944-1960 are among the citizens

acquiring the most numerous educational credentials in the history of our country. Many of them think that a Bachelor's Degree is not a sufficient guarantee of admission to a job. They are now filling graduate schools. Business education has grown by leaps and bounds. MBA degrees are proliferating. The march is on to acquire credentials in an effort to acquire a satisfactory position. But while the credentials may serve as a ticket of admission, they do not guarantee superior performance on the job.

Meeting the Future

We are the people who will make the choices about what our future will be. Because we usually react rather than pro-act, we will undoubtedly band-aid our way through. And because we are not likely as a nation to rapidly create new systems, generate or accept changing values or work and ethics, and restructure our economy, the changes will be modestly incremental.

What I see is an increasing amount of work which is not as challenging as we all would like it to be. We may compensate for boring, dangerous, or dirty jobs by paying more or by importing poor aliens. We may also see some extension of leisure time by shortening the work week as we did in the Depression. I also see increasing demands for productivity. These demands in turn will require the acquisition of new and special skills and abilities by all people in the work force.

Let me tell you briefly the kinds of knowledge, attitudes and skills I think men and women need in order to be productive, contributing members in a large scale business organization. In most cases, these are skills and attitudes which apply across the board for all

of us, however long we have been with a company. The better prepared we are with these skills and knowledge the more effective we will be, the more productive and the more satisfied as workers.

A key understanding which any worker in today's society needs is a basic knowledge of the economic environment of which we in the United States are a part. Many of us do not have a clear understanding of what we define as capitalism or even the modified form it has taken in this country. When a young person comes into a large industrial organization, one of the values that prevails within such a publicly owned profit-making business or industry is allegiance to the concept of capitalism and certainly a strong mission to make profit. What does that mean? What does that mean to a mail clerk, to the secretary, to the key punch operator, to the person in charge of the word processing facility, to the staff committed to cleaning up the building? The theory and practice of capitalism, as understood by American industry, impacts all employees, and it also affects whether or not employees will join labor unions, whether the economy will grow, how salaries will be administered, and whether the company will be hiring or firing. New employees especially need to know how to find out what kind of industry or industrial environment he or she is entering. What's the profile of that firm in the market place of the United States? Is it a service industry? Is it a manufacturing industry? Is it high technology dependent? Is it international? What kind of firm is it? And how do I find out?

There are other basic articles of information about the business enterprise in the United States that any citizen, especially one working

in a large organization, needs to be aware of. A new employee needs to be able to translate and understand the personal significance of the alphabet soup that goes with industry. Education has its alphabet and acronyms and jargon; so does business. Most men and women today need to know what OSHA, ERISA, and SEC all stand for. They are agencies, movements and laws which affect all of us, and when one is a business employee they have even greater importance.

There are specific knowledge bases critical to acquiring or achieving certain specific entry level jobs. Many of them are easy to identify becuase we have them now and will continue to have them. For example, even with the advent of new technology, typewriters will probably be around for a while. To be sure, they may within 20 years be replaced by voice-activated dictation machines which print out what you speak into them. I can't predict a timetable for that, but chances are it will be within ten years. However, though machines may replace secretaries for dictation, there will probably be other trade offs so that typewriters and secretarial positions will not immediately be replaced by such high technology. Additionally, some people will never be able to get used to talking to a machine. Some executives can't do it now. That is why we continue to need men and women who are top notch stenographers.

The skills of typing and stenography will continue to be required. They are the easiest to check for and to test when someone enters the market place. The better the skills the more chance the person will have of being hired. It is also true, however, that when a stenographer comes into a job she or he may discover that the person who hired them

really has little use for their stenographic skills. We find that people need to be retooled to retain the skills they worked so hard to acquire to be ready for the next position where those skills may be required again. It seems to me that this is another opportunity for educational institutions to provide a major service by helping people keep their skills in good working order.

There has also been a lot of talk about the attitudes that men and women bring with them when they come to work, particularly young men and women. The focus of this talk is the decline of young people's respect for authority. There are many breathing sighs of relief that the 60's are behind us and our institutions are intact. There are others who talk about the major changes in life styles and life values of young men and women. Counter to this runs the on-going strain of young men and women who continue to seek rewards based on money only. As I view the industrial world, I see some young men and women who want more than they are willing to work for. I also see those who desire to turn out a good day's work, to achieve well and to be rewarded appropriately. There is in fact a meritocracy at work within large organizations. That is not to say that there is equality or equal justice, but there are systems and attempts at equity. The attitudes which I think will be critical for individuals in the next 20 years are those which reflect themselves in individual flexibility, in an increasing desire for productivity as well as an increasing desire and skill to collaborate with others in the work environment.

Another attitude which has been in short supply recently is courtesy. I am always struck by the number of customer service training programs which are found in all kinds of industries--the airlines, the

banks and the railroads. I think another attitude which needs to be developed is one that is able to cope with what I think will be an increasingly difficult problem--namely, jobs which are not exciting. There will continue to be more people than there are jobs. There will continue to be more unattractive jobs than attractive jobs. In order for people to remain whole and alive and have a sense of their own worth, attitudes need to be developed which give them the ability and flexibility to see themselves as total persons not solely defined by their jobs.

As I mentioned before, it is easy to define the skills needed by secretaries. They are primarily measurable skills such as typing and the ability to take shorthand. However, there is a whole cluster or construct of additional skills which are required to support those specifics. These skills are necessary for all men and women entering industry. Some of them are so well known that we no longer notice them, except in their absence. These characteristics, basic skills, have become trite, and yet they are still the core of effective membership in any organization. The major one I think of is the skill of communicating. That of course can be refined even further to the skills of writing, conversing, leading a small group, coaching and counseling or being understood by another person. These communication skills are critical to any individual in any organization. For example, a new employee coming in may not know what he or she needs to know in order to survive the first week on the job. More than occasionally, bosses don't take the time to tell new employees what they need to know. For these individuals the skill of asking for information is critical.

As work progresses and as people relate in daily on-the-job encounters, another critical skill of communication is that of dealing with conflict. How do we resolve our differences--whether there is conflict in getting the messenger you need on time or in having the copy of the letter run off by three o'clock for your boss. Critical skills--those of communication. An often overlooked communication component is the skill of listening.

Another major skill deficiency that shows up continuously is the need for planning, organizing and managing time. The lack of these skills is a chronic complaint. Everyone is overwhelmed with paper work, telephone calls and interruptions. Secretaries, mail clerks, computer terminal workers, key punch operators as well as janitorial and custodial staffs are all overwhelmed with more work than there is time. The work has to be managed; the time has to be planned. Young men and women, although they may have had some experience in planning and organizing when they were working at getting their homework done while holding a job, need further skills and training in this area.

Although I mentioned the skill of writing as a communication skill earlier, I would like to emphasize it again. For some unknown reason, whenever a young person comes into a job he/she seems automatically to think that business writing is somehow different from writing well. People pick up all kinds of weird ideas and perpetuate them. If, in fact, our young men and women have learned to write, there should be little or no difficulty in knowing how to write a memorandum, a letter, an order, a complaint. Perhaps what's missing is the attempt at making the link between the English classroom and the office desk. If some

connection were seen between writing that paragraph or composition and writing the report for your unit then perhaps we could rid ourselves of myth and develop competence.

Another key skill which is very hard to get a handle on is that of problem solving. People are confronted with problems every day and in every way on and off the job. The skill and ability of gathering data, analyzing and diagnosing, checking contingencies and predicting consequences are skills which we all need and which we can all improve upon. Men and women in industry need to have some initial practice in problem solving and the application of those methods to real-life issues.

Entry-level employees need expertise with some of the gadgets we are all called upon to use. For example, it takes a couple of minutes to learn how to operate a tape recorder or hook it up so that you can do some typing from it. It also takes some training to be able to know how to handle a phone console and direct and redirect messages and telephone calls to appropriate parties in the office. In this day and age, and certainly within the next 20 years, everyone should have some conceptual understanding of what is a computer, what makes it work, and how information is put into it and how it is gotten out. Everybody should know the difference between batch and off line processing. Nowadays and continuing into the future, we all need to know about calculators. How do we use one? They seem to have taken the place of that horrendous adding machine I can remember using at the bank, but I should know how to make that calculator work effectively and surpass the merits of adding

machines. A friend of mine once said that the critical life skills were knowing how to swim, how to drive a car and how to type. I would say that in industry the critical skills, in terms of mechanical instruments, were knowing how to type, how to handle the phone, and how to use a tape recorder/calculator and slide projector. Increasingly, we all need to know how to run video tape recorders and play back machnines. Although it is not prevalent in all industries at this point in time, the ability to phone in your dictation over the telephone to the word processing center is another skill which we all have to practice and develop.

What the technological inventions of the next 20 years will bring us, I don't know. I do know that in order for us to be able to survive and stay with some sense of security in our jobs, we have to develop in young men and women the ability to cope, to be flexible, to learn and to change and to grow.

Beyond On-the-Job Skills

The business education of young men and women and older men and women throughout their lifetime has to focus increasingly on the individuals. Their needs can be translated in terms such as the ability to cope, to compete, to withstand stress, to be flexible. They must be able to make decisions, to solve problems. They need a sense of their place in this world, not only in the world of work but within the entire environment in which they live and operate. Men and women, whatever age, whatever rank in industry with whatever acquired history or skills, still need to develop and confirm their sense of self.

Men and women of all ages need continually to be in touch with their values. They need to ask what is it that makes them tick, what do they want, what is the environment in which they would most benefit themselves and any organization? You in education know this process as values clarification. Increasingly, values clarification plays a major role in business. The tone, the structure, the ethics, and the management of a business is based on its values.

If there are discrepancies between the values of an organization and the values of an individual, there is not going to be a match. It becomes increasingly important, especially as we enter the next 20 years which will bring major complexities and problems, that individuals more and more have a sense of who they are and what they value. We cannot talk about developing young men and women without helping those of us who are middle aged and beyond to redefine ourselves as well and to seek worthwhile work by paying attention to our values. Young and old have to look at values and get a sense of what it is we want to be when we grow up.

We know that most young people will have at least three major career changes in their lifetime. The ability to determine what those changes will be is critical. Young men and women who want to be secretaries upon high school graduation may discover they want to be physical therapists when they are 28. How do they discover this? How do they develop access to the training and how do they plan lives so that they may make the change? It seems to me that business educators have a responsibility to help their students focus on their particular gifts, values and skills and to get a look at how

they can transfer or translate from where they are to what they want to be.

I recently ran a career planning workshop for nonmanagement employees in our company. We had six participants, all of whom were employed in our accounting reporting section. Of these six people, one of them was close to retiring and the other five were under the age of 30. The one approaching retirement is already planning his next career. Of the five under the age of 30, there is one young man who really wants to be a pharmacist, a young woman who wants to be a physical therapist and another young woman who wants to return to being a full time homemaker. So what did we end up with? Three people who, it seems at this point in time, were in a place they did not want to be.

To me it is very important to help people discover where they want to be and then help them get there. In conjunction with changing careers, there is the need for the constant upgrading and providing of technical skills, knowledge and information. With the world changing at an ever more rapid pace, with governmental rulings and with an increasing information base, technical skills need to be kept up to date. When we consider the new rulings from the SEC or Federal Accounting Standards Board, from OSHA and ERDA and all those that come from HEW as well as major new breakthroughs in technology, it is obvious that the educational institutions become the focal point for providing the latest information and knowledge to its students.

Keeping up with changes and new technical information is something that professionals in the educational institutions are well

suited to do. Yet, we find sometimes that men and women in industry have the information sooner and faster. In some cases, they are the people who have in fact generated the new technology. Therefore, it becomes obvious that the way to keep skills up to date and information for students up to date is to build better links between the education institutions and the business organizations. Ideas such as internships and faculty/business exchanges have come back into their own again. Work-study projects, work-study semesters, stop out and drop out all have created the opportunity for acquiring information in the work environment and acquiring information in the educational environment.

These links can be created formally with an institution to institution relationship. We can for example have community colleges in direct contact with community industry and business. The leaders of both insitutions can get together to determine needs and provide the appropriate environment for working and/or learning. Learning one's living and living one's learning can go on simultaneously. I was struck recently by an announcement that the Atlantic County Community College was going to be offering course work for croupiers. The College will be providing the training required by the next industry in Atlantic County--the gambling industry located in Atlantic City. That's one kind of educational/industrial cooperation.

Because it is so difficult to project what new technologies will evolve, what new structures will come about, what new requirements will be here tomorrow, it seems to me that the creation of these links is the only way that we are all going to be able to change and cope and

meet the new demands of our society.

We are also concerned with the changing ways in which people are acquiring their education. Whether it be the new acceptability of stopping out and sometimes dropping out or whether it be the fact that 35% of the enrollment in colleges and universities is composed of continuing education students over age 22 these days, we find that the acquisition of education continues in new ways and in new forms. Continuous changes in our values, our social systems and our culture seem to indicate that we may well be on our way to creating sabbaticals for more and more of us before we reach 65 and sometime after we turn 22. In other words, education will no longer be limited to the young and immature. Education may no longer have to focus solely on providing us with credentials so that we may acquire employment.

Just as colleges and universities and high schools are working increasingly in the assessment of competencies and the provision of learning opportunities to develop competencies so industry is also moving to assess competency. This assessment will increasingly be credentials free. Therefore, education may return to its former process, namely, that of helping people to learn and think and cope and grow. This goal of education will cease to be that of turning out a commodity for the job market. But the process of education will enable men and women of all ages to cope with job changes, with knowledge explosions and with a lessening of opportunities for employment and lowering of material expectations while retaining a sense of one's individual worth. Learning to learn is that which the educational process can best provide. When we have learned how to

learn and have the basic tools at our disposal, then the new technologies, the new information will not wipe us out. We will continue to grow.

My crystal ball is foggy because I cannot tell you what the future will hold. Just like you, I can speculate, I can provide my own opinion and I can state what my preferred vision of the future is. I tend to be pessimistic in terms of recognizing that there will not be enough official work as we know it today. There is, however, always plenty of work. The question is will our society create a new definition for work so that all of us can contribute to a new culture and environment which values each of us for our own peculiar skills and not for what the going rate is in the job market today.

HELP FROM RECENT RESEARCH FOR EDUCATING STUDENTS FOR TOMORROW'S JOBS

Gloria Ortner Chapman

What are the skills, aptitudes and knowledge critical for success in the future? Some say we will need only robots and some say only theorists. While neither extreme is probable, particularly for the million small businesses of this country, there will be many new job titles and much new equipment. Research on hundreds of clerical employees gives us good indication of the aptitudes and skills needed and ways schools can help students prepare for tomorrow.

To predict future business employment in small, as well as large, business, both the supply of employees and the demand must be considered. Interactions occur and influence organizational staffing. Some trends are definitely affecting the supply of clerical workers and the types of jobs they seek. Primarily a field of women employees, clerical work has now large numbers of mature women who have returned to--or never left--the labor market. This group may not be easily replaced since more young women are preparing for and entering college, being advanced to managerial positions and in some cases entering non-traditional jobs as skilled manual workers. Affirmative action programs of employers and unions provide more highly paid positions for women. In some firms these have been created by restructuring office jobs and acquiring automated equipment. Another trend is that many young

men are seeking jobs which provide opportunities for self expression and some of them wish to enter or set up small businesses. The interest in small business is now so great that whereas prior to 1969 only eight colleges of business administration had courses in small business, by 1975 over sixty were offering such courses.

Changes in business demand are occurring rapidly but some tend to counteract others so the total number of opportunities may not change greatly though the skills and aptitudes needed will. The development of automated equipment in data and word processing decreases the number of employees needed for jobs such as routine billing and typing. The companies which can afford such equipment, however, are those which are expanding so typically attrition alone takes care of those who might be unemployed because of introduction of the machines. For example, banking has been utilizing data processing equipment for several years yet in the period from 1960 to 1973, the number employed increased over 490,000 and a rate of increase of 3.4% per year through 1985 is predicted by the Bureau of Labor Statistics. Studies show that although the number of bookkeepers has declined, the number of data processing personnel increased substantially and even the number of tellers will increase by forty per cent in the period from 1970 to 1980. Research on the aptitudes critical for success in banking provides a valuable illustration of the effects of automation on job requirements and will be described later.

The introduction of data processing and even word processing equipment is not limited to large businesses. As these machines

become less expensive, more small businesses will utilize them. Studies of small businesses in the financial field show some have already acquired them to improve the accuracy as well as the efficiency of their staffs.

In general, however, occupations in small businesses have been and will continue to be affected by overall business conditions more than by the introduction of new equipment. The small businesses suffer greatly in even short recessions despite the efforts of the Small Business Administration to provide financing and advice. When changes occur, usually the marginal worker is laid off. Decreases in staff enhance the value of the versatile worker. For example, studies show in a small business the bookkeeper often has typing duties. A study by the New York State Division of Industrial Services revealed also that it is in the small businesses that a thorough knowledge of bookkeeping is most needed.

There are a wide variety of small businesses in New York State which provide employment for substantial numbers of clerical workers even though large firms in New York City tend to over-shadow them. For example, a large source of clerical jobs are the non-profit membership organizations which employ 36,400 clerical workers. A study by the New York State Division of Research and Statistics of the Labor Department found that the average size is fourteen, four of whom are clerical workers. Insurance agents employ 22,800 clerical workers; their offices average seven employees of whom four are clerical. Miscellaneous services, such as engineering, architectural and accounting services, employ 29,100 clerical workers;

the average office has twelve employees of whom three are clerical. Miscellaneous business services employ 81,100 clerical workers; the average size is seventeen of whom five are clerical.

What types of clerical workers do these firms employ? The non-profit organizations most frequently have secretaries, general clerks, typists and bookkeepers. The insurance agencies employ general clerks, secretaries, typists, file clerks, claims clerks and accounting clerks in that order of frequency. The miscellaneous services have secretaries, general clerks, key punch operators, typists and accounting clerks. The miscellaneous business services have secretaries, general clerks, typists and stenographers. Thus, secretaries and general clerks, employees who have a wide variety of skills, are most needed in small businesses. Specialized workers are found in fewer of the fields,and even in those their numbers are smaller.

The results of a recent national survey of small businesses give additional clues to their needs. Mr. Charles Heatherly of the National Federation of Independent Business kindly provided us with some data prior to their official report. The survey included responses from 2,696 businessmen and shows they need and find it difficult to locate applicants who have the skills to work productively without further training. A third of the complaints about recently employed workers were that they did not have "job-related skills." Some, but notably fewer, were that applicants were unable to read, write and do simple arithmetic well. Thirty-nine percent had found it difficult to find a qualified person among applicants

and another twenty-six per cent had found few qualified; only nine per cent had "plenty of good applicants." Of the five hundred unable to fill current jobs, most needed skilled manual workers and sales personnel; only seven per cent had been unable to fill clerical positions. While the openings for clerical workers was a smaller per cent than for others, it shows there are unfilled openings in these firms. The United States Labor Department in June 1977 showed over 11,500 openings for secretaries and 10,000 for general office clerks had not been filled.

While small businessmen express dissatisfaction with the number of applicants who do not have skills to perform a job proficiently, executives of large business more often are discontent with the low level of arithmetic and communication skills. The Conference Board reported in 1977 that its survey of 600 executives revealed fifty-four per cent rated as poor the preparation in English, reading, writing and oral communication. Also many criticized the lack of computational skills. Many of these companies provide training to develop specific job skills and expect the schools to provide basic skills. They recommend that schools adapt the techniques which have proven successful: participation, tailoring instruction to fit student needs, and more programmed learning materials.

Need for stronger basic skills in language and mathematics has been stressed by those who are introducing advanced technology into businesses. IBM has recommended greater emphasis on grammar and spelling throughout the secondary school commercial program. Even programs in electronic data processing indicate need for computational concepts and studies show that those who operate such equip-

ment need basic arithmetic skill.

The two year study of Richard W. Beatty of the University of Colorado shows that achievement in arithmetic computation and vocabulary and good clerical perception are related to the job success of hard core unemployed. He studied the progress of clerks in a medium sized insurance firm and found its training program in basic skills improved job performance and that competence in vocabulary and arithmetic and clerical perception relate to wages and ratings by supervisors.

The Dictionary of Occupational Titles describes over 30,000 jobs and gives the results of U.S. Department of Labor occupational analysts' estimates of the level of skills, aptitudes and training required. It groups jobs which require similar traits even though found in different types of companies. This helps students recognize the breadth of opportunities available, often with very different job titles. Many schools find having these books in classrooms as well as libraries encourages students to become familiar with occupations.

Increasingly students need to know the types of jobs for which they should apply and to develop relevant skills prior to applying. Whereas in the past even small employers often used measures of aptitudes to find those who had potential despite lack of skills, most employers have discontinued aptitude testing because of the stringent requirements set forth by the Equal Employment Opportunity Commission.

As a consequence of the Supreme Court decisions relating to

employment procedures, the burden of proof is on an employer to show that hiring standards are job related. Nor can an employer avoid the issue by resorting to pre-World War I methods involving the interview or selecting on the basis of items on an application blank. All hiring standards must be shown to be job related, including but not limited to psychological tests. For employment procedures to be acceptable, the employer must have available data based on research that the hiring standards are related to important elements of a job for which applicants are being measured. Such research is difficult.

While many companies have discontinued aptitude testing, the United States Department of Labor has undertaken extensive research in cooperation with business and industry to determine the aptitudes important for success, particularly in entry jobs. The results of these studies can help counselors and teachers guide students to the type of training and entry job most appropriate to the level of their aptitudes. There are studies on key clerical occupations, on jobs which use new data processing equipment, and on occupations in the field of health services and education which require clerical skills. Designed in accordance with the Equal Employment Opportunity Guidelines, these studies involved minority and non-minority employees and the standards set were shown to be fair to both groups.

Probably the study which has greatest importance for small as well as large businesses is that of general office clerk. Examining the duties of these workers shows they need a broad range of skills for they are required to type, perform some fiscal tasks such as

billing, operate adding and/or calculating machines, and file.

With a sample of over 400 general office clerks, we have found that general learning ability, numerical aptitude and perception of clerical details are critical for success. To be certain these results are not unique to this sample, they were cross-validated by using an additional sample of over 100 clerks and one of over 80 clerical trainees. These trainees were rated by instructors and measured by a typing test. To be able to meet satisfactory levels of performance, they needed a combination of an above average score on clerical perception, and average scores on mental ability and the numerical aptitude tests. Of those trainees who met the combined criteria, 84 per cent had good ratings by their instructors and adequate or better typing skills; in contrast 45 per cent of those who did not have aptitudes at those levels, 45 per cent were judged unsatisfactory by instructors and did not meet typing standards. About two-thirds of the good workers but only one-third of those rated low by their supervisors met these aptitude levels.

While dexterity is commonly considered very important for success in occupations which require typing, other aptitudes are shown to be more important for general office clerks. General learning ability, numerical aptitude, verbal aptitude, clerical perception and form perception are more closely related to good ratings by supervisors than is dexterity. Most of these clerks are not assigned the highly repetitive tasks for which dexterity has most value.

A key punch operator, however, needs at least low-average dexterity to meet minimal standards. A study of 350 key punch operators

reveals that the combination of low-average manual dexterity, high-average clerical perception and low-average general learning ability are minimal standards for adequate performance. The level of general learning ability is lower than that which is critical for general office clerks and the level of numerical aptitude is not significant. Thus, students who rank low on these might be appropriately guided toward key punch operations if they have the dexterity and clerical perception required.

Dexterity is also a critical skill for those clerical students who seek jobs as grocery clerks. Changes occurring in the tasks of grocery checkers may increase with electronic scanning machines but these innovations are moving slowly and will not affect small stores for several years. These may decrease the importance of numerical aptitude; presently at least low-average numerical aptitude differentiages between poor and adequate checkers. Average dexterity and motor coordination are also critical,according to a study based on work samples and ratings by supervisors or instructors. It also shows that the greater the manual dexterity, the numerical aptitude, the motor coordination, the form perception and the general learning ability,the greater the chance for success.

Store managers have told us that there can be some compensation for problems with either manual dexterity or numerical aptitude. Those who have trouble with arithmetic may be able to keep up the pace by skill in bagging. Some store managers are aware of this and help employees to recognize strengths and weaknesses. This type of help can also be given by schools.

How automation makes a difference in the level of skills required for entry level jobs is evident from two studies in the banking field--teller and proof machine operator. The study of tellers involved a total of 450 employees; 291 in the validation study and 159 in additional studies to check the results. One of these was conducted in cooperation with Buffalo banks and included "teller differences" as well as ratings by supervisors. The results show tellers must possess a combination of high-average clerical perception and form perception and at least low-average numerical aptitude. The more successful are likely to have a good deal of numerical aptitude, and there are also significant correlations with general learning ability, verbal aptitude, form perception and clerical perception.

Those who wish to work in banking but do not have the level of numerical aptitude for a teller job might meet the standards for a job such as proof machine operator. After the teller has recorded your check, it is sent through a proof machine which tallies the amounts on the checks so the totals can be compared with the teller's tallies. Above average clerical perception and average hand-eye coordination are needed,and while numerical aptitude is related to success, the level necessary to meet minimal standards is low.

Students should be made aware that research shows clerical skills are important for jobs other than those in business. Often those who may not have the aptitudes for typical clerical jobs can find employment which involves some clerical duties. In the medical

field, ward clerks need low-average clerical perception and the level of general learning ability, motor coordination and numerical aptitude can be at a level lower than typical for the clerical field. Also nurse aids and licensed practical nurses were found to need some competency in clerical perception. Teacher aids in elementary school need average clerical perception and motor coordination but their numerical and verbal aptitudes need not be at the level of most clerical workers.

What do these studies show that can help students prepare for the future? Primarily they show that locating an appropriate job requires an early assessment of aptitudes and basic skills so that preparation has realistic objectives. Knowing the aptitudes and skills of the students, the teacher can provide experiences and materials which will enhance their vocational preparation. Students who are aware of their strengths and weaknesses and how these relate to jobs are more interested in improvement. Their clerical perception may be improved by training in arithmetic and writing and, in some cases, attention to their vision may be needed. For many programmed arithmetic, spelling or grammar materials could be supplementary to courses in typing, bookkeeping and record keeping.

Because of the value of aptitude testing and job counseling, the New York State Department of Labor provides special counselors in the New York City high schools to help students relate their strengths and weaknesses to labor market demands. This type of program is needed in many schools if students are to benefit from their educational preparation.

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SUFFOLK COUNTY DEPARTMENT OF CIVIL SERVICE

AN OVERVIEW OF EDUCATIONAL REQUIREMENTS FOR ENTRY LEVEL WORKERS IN GOVERNMENT

George Meyer

It is indeed encouraging to realize, as a professional in Personnel, that the New York Statewide Business Education Review Committee is taking such an in-depth look at the required knowledge, skills, and abilities of entry level workers in government. It is most particularly gratifying to see that the concern transcends the immediate and projects itself two decades into the future. While I am uncertain about my ability to predict with accuracy the knowledge clusters most required for the future, I will do so based upon the most reliable indicators available. However, any changes made to meet the requirements of the future must begin by making changes in those inadequacies of the present. Let us begin by trying to address these inadequacies.

Government, as a business (if I may be allowed that comparison), probably employs more separate and distinct disciplines than any other employer. Suffolk County alone has over 1,300 job titles in all its many jurisdictions. As government is a paper intensive, record generating entity, the vast majority of employees in government are clericals. The following titles are but a few examples of these positions:

Clerk
Clerk-Typist
Stenographer

Key Punch Operator
Data Entry Operator
Duplicating Machine Operator
Bookkeeping Machine Operator
Computer Operator
Micrographics Operator
Morgue Clerk
Motor Vehicle License Examiner, etc.

It is through these titles that the largest number of people enter the government service. The Civil Service Department holds examinations for each of these entry level job titles, both written and performance. The minimum qualification to enter such an examination is a high school diploma. It is at this juncture that the educational system and government system of Civil Service fail to interface.

The written portion of the examination is a redundancy. It tests for those basic knowledges expected of a high school graduate and, in most instances, this is borne out in the fact that the majority of high school graduates pass the examination. The interface fails when one realizes that we are testing those essential knowledge clusters necessary to obtain a high school diploma--but why do we test then? Obviously because we lack confidence in the high school diploma as a quantifier.

In preparation for this paper, I explored means of authenticating, with reasonable accuracy, the level of achievement inherent in a high school diploma. Of course, the immediate response is a uniform Regents examination to test for this level of achievement.

Would a Regents examination be satisfactory to Civil Service? As presently structured--No; with modification--Yes.

I would modify the current practice of allowing a two week Regents preparation prior to the day the examination is given. This seriously impairs the effectiveness of the examination as a tool. The participants have been "test oriented" and answer questions in a manner they believe is expected of them by the examiners and do not respond to the questions utilizing their own analytical abilities. Heavy cramming and study sessions just prior to an examination often measure the individual's capability to memorize rather than fully understand the information provided by the course curriculum.

I know I need make no statement in this presentation relative to the popular opinion of the educational level of many of our high school graduates. Certainly, they lack even a good elementary school education. Ill-equipped to meet the demands of employers, and endowed with a high expectation of reasonable opportunity, they leave the school only to be quickly disillusioned when they find they are not only competing with high school graduates, but with college graduates as well for the same job.

As I understand my charge from this Committee, we must be concerned more with those who are in the process of receiving an education, or those who have completed at least a secondary level education,

rather than being preoccupied with the plight of the dropout. I am sure that a segment of the dropout population would be more concerned with completing high school if they were assured that the diploma received upon completion was indeed a "key" to something desirable, and not just a "piece of paper." Of course, there are those who

cannot be helped by academics, and I shall address myself to those individuals a little later.

Educators must be allowed to insist on a level of performance that is greater than that of the lowest common denominator in the class. The lack of dollars necessary to structure classes into groups of equal achievers results in hopeless frustrations to many of the students; this, complicated by the inability of the classroom instructor to invoke a system of discipline, is one of the most problems. The parents' refusal to accept their responsibility as primary motivators complicates that problem, and most other faults in the system as it operates today stem from this.

During those days of Vietman, our schools of higher education were utilized by many as sanctuaries, rather than as institutions of learning. Motivated by the wrong incentive, these individuals seriously impaired the capabilities of the institution to perform; they were there because, in their minds, they had to be there. The same thing is occurring in high schools today, but on a smaller scale. Many students who do not want to be in school are staying there because the law mandates it, or because, should they be removed from the system, where would they go? Into a life of crime? Onto the welfare roles as emancipated youth? I do not know the answer to that problem.

I quote Raymond Marshall in an article entitled, "Full Employment, the Inflation Myth," published in The Federationist in August 1976:

> "Federal expenditures for manpower programs increased from $450 million in 1969 to $2.6 billion by 1970 and more than $9 billion by 1976. Although they were cost-effective for the government and the people who partici-

> pated within these programs, they did not substantially reduce unemployment or increase the skills of the unemployed because they were experimental and small relative to the need..."

Obviously, if $9 billion dollars is insufficient to resolve the problem, the tactic will have to be to attack the infecting agent, rather than treat the symptoms.

Discipline is a basic requirement of human society--without it, we cannot function. The lack of discipline precludes an individual from any real chance of success in our society. If discipline could be restored, the Regents diploma could then be elevated to a level of achievement Civil Service could find acceptable as a comparable test to the written examination. This would allow direct participation in the practical examination without further test.

To reach this mode of operation, the academic community would have to maintain a curriculum that met Civil Service standards; additionally, Civil Service would be required to audit the standards of the school to assure a continued level of competence. This system would allow for greater motivation for the students. Although far from the guarantee of a job, it would at least be an assurance that the classroom was in actuality a true preparation for employment.

It should be understood that the exclusive application of such a yardstick could not be utilized; rather, it could become one part of a two-track system: one track constituting the written examination, the other representing the validated high school diploma. Both would merge at the practical examination and one list would be produced. In theory, a two-track unassembled examination is currently in place. When we require a high school diploma, we accept the high school equivalency diploma; though obviously not the same, they are comparable

and that is the key factor here.

This principle of upgraded certification could be expanded to other fields--Data Processing, Police, Draftsmen, Engineering Aide, Environmental, Health Aide, Park Ranger, and many more--all of which require only a high school diploma as the minimum qualification. The concept is not unique. Academicians have for many years sought better methods of preparing their students to qualify for available job opportunities. Countless hours have been spent soliciting job specifications from Personnel Directors in an effort to ensure that course content truly reflected the required knowledge, skills and abilities necessary for an entry level worker; on the whole, course contents have reflected these specifications.

The system fails, however, when one examines the graduate of that system and finds that, though the person took the prerequisite courses and completed them with high enough grades to be graduated, they have not really performed the task! The knowledge has not been assimilated--Why?

We outside of academic society hear many reasons: marginal I.Q., poor home environment, poor diet, etc., all of which are indeed valid arguments, but all external problems beyond the purview of the educator. Certainly, if we are to set a higher standard for those who want to learn, we must cease the utilization of the classroom for custodial care.

There are students who, at age sixteen, are hungry for knowledge and students that same age who have assimilated all they are going to assimilate--for now. Those who have reached their saturation point should be allowed to enter another environment, the world of work.

By working in low level jobs, the individual may be motivated, and should be encouraged, to return to the classroom. The key is encouraged, not forced. Many individuals who are "fed-up" with school at age sixteen are thirsty for it at age eighteen.

Clearly, to envoke such a system would require adequate safeguards to ensure that the best interests of all concerned are protected; the cost may be high, but we are currently experiencing the cost of the alternative--the sheer waste of human resources, and that cost far exceeds the $9 billion dollars presently being expended.

The Future

A few short years ago, most Economists were predicting a sharp increase in government hiring due to the public's demand for more services. It is this writer's opinion, however, that such predictions are no longer valid. The handwriting is clearly on the wall: Federal and State support is contracting, the level of property and sales tax burdens is at the outer limits. Government can no longer continue to grow incrementally; as some programs expand, others must be reduced or eliminated in order to retain a manageable and acceptable tax burden on our citizenry.

Clearly, what had been a sharp peaking of employment has softened to a low parabola. The demand for clerical personnel will remain at least at the current level and will, in most instances, increase due to the greater demand for information generated by more sophisticated data storage assessment and retrieval systems.

A large part of the demand in this occupation is caused by

employee turnover. A female-intensive occupation, many workers leave the labor market upon marriage or motherhood and return to work ten to fifteen years later. There is no valid reason for this position to be female-intensive! Many male applicants will turn down a clerical position in favor of a lower paying "blue collar" position, leading one to the conclusion that they have been preconditioned to the concept of "women's work."

I realize that the academic community is attacking this concept, and similar sexist problems. I anticipate the future will see a better female-male mix in all occupations. To accomplish this goal, clerical curriculums should include additional courses such as:

Business and Public Policy
Principles of Business Law
Governmental Controls on Business
Basic Psychology
Human Relations
Leadership
Effective Communications
Introduction to Data Processing

This may appear to be overkill for "just a clerical"; however, due in no small part to Affirmative Action Programs, greater emphasis upon upward mobility is providing "bridges" by which the promising clerical may advance directly into the professional ranks. It is a well known fact that there are serious inadequacies in the number of women in management positions. Government will be looking to provide for an equitable distribution of women in these positions.

If current trends continue, greater emphasis will be placed upon Electronic Data Processing and Word Handling equipment. Within the next ten years each student in a business curriculum should have an understanding of machine functions and logics; they should be able to

gauge with some degree of accuracy the point when a system should be mechanized or when that system would operate more efficiently on a manual basis.

Although most business majors today study at least one course in Basic Economics, that course does not encompass enough statistical, tabular and graphic material to allow the individual to quickly asses the material before him. The future decades, due to greater EDP utilization, will be generating demographies on almost every facet of our work. This should be a high priority item.

Most law enforcement agencies will see expansion within the next decade as the public's demands for a lower 'acceptable' crime rate increase. Law enforcement officers are nominally drawn from a pool of high school graduates. Additionally, law is generic to our enterprise system. Serious consideration should be given to courses in Introductory Law and in the Basics of Criminal Justice.

As we progress through the 1980's, we are certain to experience more emphasis being placed on ethics in government. A more enlightened electorate will not only demand a high level of productivity, but also a higher level of moral philosophy. The events of the past few years, with the passage of Freedom of Information and other "sunshine" laws, assure this. Unfortunately, the past has sometimes accepted a theorum of "localized prevalent acceptable norm," rather than the ethical standard. I therefore would also recommend additions to the curriculum in areas such as "Ethical Philosophy." This should be included in every business course, as I am certain the current trend in government will move into the private sector in the period we are discussing.

With a greater portion of our population living a longer period of time, more demand will be generated for the social disciplines--Community Aides, Senior Citizen Aide, etc.--in preparation for this. Students will require a thorough understanding of the problems of the aged. Curriculum for these positions should be inclusive of:

Social Psychology
Family Patterns
Patterns of Youth/Aged Interactions
Basic Introduction to Social Work

The movement toward a centralized delivery of services continues its inertia. Health Maintenance Organizations (HMO's) will require many sub-professionals. Many recent advances in technology will allow the more effective use of professional personnel in those more sophisticated areas requiring higher skill levels.

The numbers of Laboratory Aides, Health Aides, Sanitarian Aides, etc., will increase in disproportionate ratio to the professional positions as greater emphasis is made upon cutting the rapidly rising cost of medical care. Certainly, for these high school courses, we will need increased attention to curriculum covering basic:

Psychology
Sociology
Biology
Chemistry
Anatomy

While there will be increased demand for Engineering personnel in the private sector, I do not foresee a parallel increase in the public sector. More efficient utilization of computers, coupled with the use of consultants to avoid unnecessary buildup of staff for short-term projects, will make this discipline one of those for which I see a curtailment of growth.

While the foregoing contains the leading items disclosed by my cloudy crystal ball, there are others for which the amount of growth and changes in the state of the art will be so small as not to warrant any change in the curriculum. It is my personal conviction that, if we can teach discipline at the Kindergarten through Twelfth grade levels, all others will follow. Motivation appears in different people at different points in their lives. I sincerely appreciate appearing before this Committee and being afforded an opportunity to present the problems in government personnel recruiting.

A PROPOSAL FOR DEVELOPING THE NEW YORK STATE BUSINESS EDUCATION CURRICULUM

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Courseware, Inc.

OVERVIEW

The work of the Statewide Business Education Review Committee laid the groundwork for the development of a competency based business education curriculum for New York State. This paper proposes a method for extending this effort. It reviews the basic assumptions that must be met if a competency based curriculum is to be meaningful and effective and proposes a general model by which the state of New York can meet these assumptions with its business education curriculum. The model presupposes a cooperative effort of business educators, administrators, members of the business community and other interest parties. It provides for an extension and validation of existing competency statements, the development of instructional objectives that will lead to the accomplishment of those competencies, and the development and implementation of a competency based testing program and a series of instructional protocols that can be used by teachers as they develop instruction directed at identified competencies. The proposed model and an accompanying staffing plan was designed to ensure input and acceptance by a broad base of interested parties, to ensure a consistency in the competence of business education graduates and yet to allow teachers the flexibility they need in developing the instruction they use in their classroom.

INTRODUCTION

The Statewide Business Education Commitee has developed a unique combination of competencies for business education. This set of competencies, and related statements concerning the student population to be served and personal use skills to be taught, provide an interesting challenge to business educators in the state of New York. They provide statements of goals to be achieved and the challenge is: "How do we accomplish these goals?" This paper provides a commentary on the work done to date and suggests an approach for accomplishing what is believed to be the intent of the committee: the establishment of business education programs which meet the real needs of its graduates and their employers in a modern society.

The community served by business education is a broad one, as is evidenced by the statements of the committee contained in their June 10 report. However, the list of core requirements have broad generality across student populations. A major question facing the committee at this time is "What is the committee's level of commitment to these requirements and the development of evaluation and teaching programs to meet them?" This paper assumes that there is considerable commitment to these ends, and proposes a competency based education and evaluation system to help ensure that these requirements will be met by New York's business education graduates. The development of a competency based education system is a challenging undertaking, however, there is probably no more applicable subject matter area than business education. This is true because the business education community is itself a response to very real needs of students, is already attuned to the community which uses its graduates, and is already committed to developing usable

skills, attitudes, and knowledge in its graduates.

The rationale for competency based education is a very logical one. The concepts of competency testing and competency based education are gaining in popularity and acceptance throughout the country, and most states and many large cities have already adopted legislation which mandates some form of competency based testing and/or education system. However, in only a few instances is the complete impact of this mandate realized. The term competency based education can have a variety of specific meanings. Generally, however, it means that the school system is committed to providing certain critical competencies to all its graduates. In order to do this, an effective competency based program must meet certain requirements. It must involve:

1. A set of meaningful and realistic competencies
2. Competencies which are specific and measurable
3. A consistent relationship between the behavioral and content requirements of student needs, the instructional program, and the testing program
4. An administrative and testing system which includes
    a. periodic identification of the competency levels of individual students
    b. instruction which can be tailored to meeting the competency needs of individual students.

A set of competencies must be meaningful in that they reflect the real needs of course graduates. They also need to be realistic in that they are attainable by students enrolled in business education courses within the time and resource constraints in such programs. Specific and measurable competencies are an asset to students, teachers, and administrators. They allow teachers and students to know what they are

working toward, and make it possible for teachers to put together instructional programs that can achieve these competencies. If competencies are non-specific they must be evaluated by inference, and testing programs are unlikely to be valid. Also, instructional programs will reflect this lack of specification and will be inconsistent as will the quality of the graduates. Similarly, if the competencies, instruction, and testing program are inconsistent in the behavioral and content components, students may be taught irrelevant skills or tested on skills that they have not been taught. Again, such a program would lack validity and reliability.

Finally, the evaluation system must be used to identify needed competencies of individual students and the instructional system must provide instruction to fill these needs if the system is to be efficient and is to ensure acceptable competency levels for all students. If such individualized testing and instructional systems are not employed, many students will receive instruction they do not need and many others will not receive the instruction in competencies they do not have.

To design and implement a truly effective competency based education program, the Statewide Business Education Review Committee must address each of these requirements. The following pages outline a proposed method by which this can be accomplished. It involves the systematic identification and clarification of competency statements, the development of instructional objectives to perfect the needs identified in the competencies, the construction of tests to measure attainment of these objectives and related competencies, the development of teacher-oriented protocols that can be used in tailoring instruction

that will meet the objectives, and the establishment of a system for disseminating, evaluating and revising tests and protocols. The proposed plan would involve teachers in the design of both tests and protocols, and will allow flexibility of application and creative input from individual teachers while ensuring a consistency in the ability of programs to provide students with needed competencies.

RECOMMENDED APPROACH

The recommended approach is systematic in that it proceeds in an orderly way through a series of interrelated steps, and it contains an evaluation and revision cycle that ensures that the instructional program will develop the needed competencies. Such an approach is gaining in popularity and breadth of application in the education community throughout the United States. Although much has been written about such systematic approaches, there is no single "systems approach" model that is generally accepted and applicable across all educational environments. Rather, there are a variety of similar models, each of which requiressome tailoring to the needs of any given education program. The model to be presented here borrows from the areas of competency based education, systems management, instructional strategy planning, and dissemination. It was developed to meet what appeared to me to be the specific needs of the New York Statewide Business Education Community. Figure 1 outlines the major elements of the proposed model, and the following pages provide an explanation of the major elements and how they can be used to create an effective competency based business education curriculum.

The implementation of this plan would require the continuation of the Statewide Business Education Review Committee and the cooperation of local review committees and/or administrators and teachers in school districts across the state. It might also require an in-service teacher education program and the help of consultants in order to ensure the level of expertise and time commitment needed for such an undertaking. Recommendations for these activities are presented in the final pages of this paper under the heading "Implementation of the

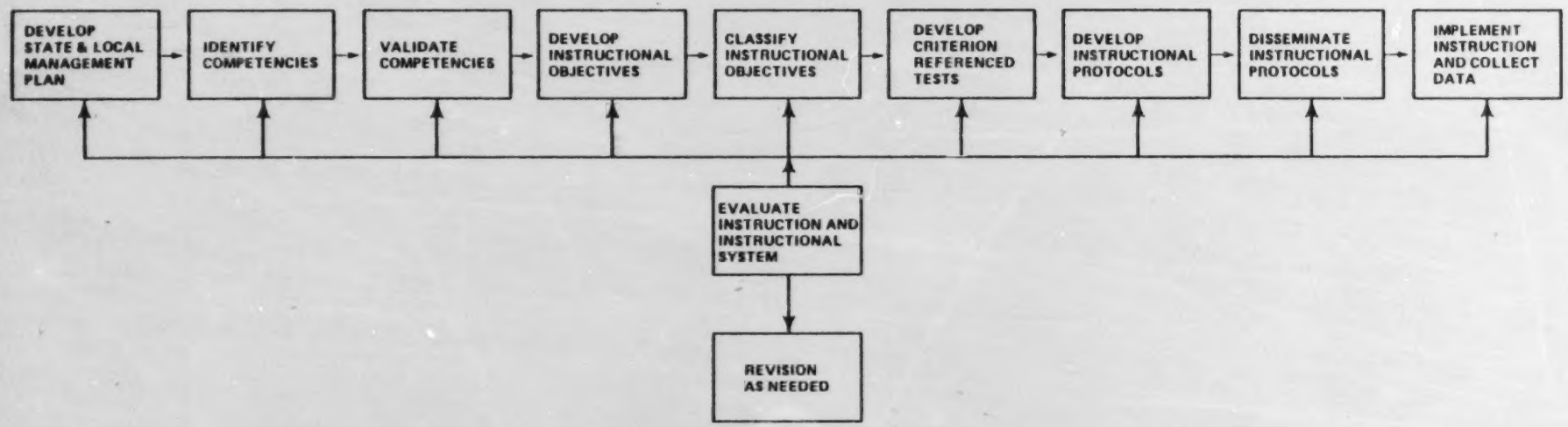

Figure 1. A PROPOSED MODEL FOR DEVELOPING A COMPETENCY BASED EDUCATION PROGRAM

Proposed Methodology."

Develop State and Local Management Plan

A management plan at the state level would specify who would be involved in each of the tasks outlined in Figure 1. In addition to describing the roles of all involved, the management plan would also indicate how each task was to be carried out and the dates by which these tasks should be completed.

At the local level, the management plan will focus on the tasks of implementing, evaluating, and revising instruction. The management plan would also address the problem of materials tryout, data collection, and feedback to the statewide committee.

Identify Competencies

A critical step in the development of a competency based education program is the identification of a meaningful set of competencies. Major strides toward this end have already been made by the statewide committee, however there remains the task of making the competency statements that have been developed more measurable and also the task of further validation of the list of competencies. The competency statements can be made more specific by including in them descriptions of the observable behaviors that will be expected of students and the conditions under which those behaviors should be observed. Once made more specific by a committee of evaluation specialists and/or educators familiar with this process, the list of competencies could be returned to the statewide committee for review and approval (or revision). Once developed, the list of specific competencies should be validated.

Validate Competencies

The validation process is used to extend the list of competencies to include the critical ones which might have been missed in earlier phases, and to collect data as to the needs for the identified competencies. The competency list should be validated by subject matter experts, administrators, and teachers in the fields of business and business education. Additional data on the validity of competencies can be provided by recent graduates in each of the categories of student population identified by the statewide committee. Questionnaires can be designed which will allow individuals to give their opinion as to which competencies they believe must be mastered by graduates of business education programs. These questionnaires can be sent to teachers, administrators, members of the business community, and recent graduates and/or can be used in structured interviews or group discussion sessions with members of these populations. The output of this process is a list of specific competencies with data relative to the validity of each competency for different populations. The data also provides information as to the extent and variety of the differing opinions as to the criticality and priority of specific competencies. The statewide committee has already made decisions about core content with varying degrees of applicability, thus recognizing the need for such differentiation and also providing their opinion as to the validity of competencies to different students with different occupational goals. An expanded validation process would provide more data for the committee to use in establishing core requirements and setting priorities for evaluation and instructional development efforts.

Develop Instructional Objectives

The next step in the proposed process is the identification and specification of the skills, knowledge and attitudinal components of each of the competencies. These are identified through a process of competency analysis which breaks down each competency into its component elements and then proceeds through the development of instructional objectives for each of these elements. The purpose of listing these component objectives is to provide specific guidance to evaluators and teachers which ensures that the evaluation program will be able to identify the missing skill elements for individual students, and that the instructional program will contain all the instruction that is necessary to achieve the competencies. If a component objective is identified as being necessary to the ultimate performance of the competency, omitting instruction relevant to the objective would decrease the probabilities that the learner would be able to learn to perform the behavior specified in the competency. Component objectives are derived by examining the competency statement and then asking the question: "What would the learner have to be able to do or to know before he could perform this competency?" Immediately, it is thereby possible to identify broad skill, knowledge or attitude components that make up that complex of ability needed to perform the specified competency. These are then examined asking the same question, and each is reduced from complex to increasingly simple skill, knowledge, and attitude compenents until the identified components can be reasonably assumed to be part of the student's repertoire prior to his entry into the business education curriculum. The output of the process of competency analysis should be stated in such a way that it can be used to develop tests and instruction. This means that it includes specification of

the conditions under which the behavior will occur, the criterion for exceptable performance (i.e., how well or to what degree the behavior must be performed in order for the student to be considered as having mastered the objective), and finally an observable behavioral indicator which will be the basis for a test item which will allow the instructor to determine whether or not the student has mastered the objective in question.

Classify Instructional Objectives

Not all instructional objectives can be taught most effectively and efficiently by using the same instructional strategy or media. The problem facing the instructional developer is often one of deciding which instructional strategy (e.g., how many examples, how much practice, what kind of feedback, etc.) should be used for a particular piece of instruction (Faust, G.W., 1977). There are certain categories of objectives which require similar instructional strategies. Once objectives are classified, appropriate strategy rules for each category can be applied. Instructional objectives should first be classified into appropriate domains, then further classified into types of learning within each domain if appropriate. Domain classification is accomplished by identifying whether the objective is directed at the development of attitude or motivational changes (the affective domain), at motor skill development (the psychomotor domain), or development of intellectual skills (the cognitive domain).

In the case of cognitive domain, skills should be further classified to reflect the type of learning they involve. The foundation of the classification system proposed for use in this program is a 2x4 matrix which allows for classification of objective by the type of

content to be taught (e.g., fact, concept, rule or procedure) and the behavior that is required of a learner (e.g., where they have to remember the content or use it in new situations). This classification can be accomplished by teachers once they have learned the system. The system is well documented and workshops on its use are available.

Develop Criterion-Referenced Tests

Mastery objectives must be adequately assessed in order to determine student progress and program. An individual student's progress may be assessed by comparing it with progress made by peers, or in terms of achievement or advancement toward specific instructional objectives. The former interpretation, comparison with peers, is referred to as norm-referenced testing, while the latter is referred to as criterion-referenced testing.

Norm-referenced interpretation results in grades which are assigned on the curve. Unfortunately, these grades provide no information pertinent to the student's ability to perform the behavior indicated in this particular objective. An "A" grade assigned on the basis of norm-referenced test interpretation merely indicates that the student has performed better than his peers. Consider an example from medical education. Suppose a group of medical students were to be graded on their ability to perform an appendectomy and further assume that no student was able to perform the operation successfully however, there was considerable variation among the performances. Since the instructor graded "on the curve," an "A" grade could be assigned to the student's performance who came closest to being considered acceptable, and was the best when compared to his peers.

If evaluation of medical training were really norm-referenced,

few of us would have much confidence in our physicians. This example, though improbable, serves to illustrate the limits inherent in norm-referenced test interpretation.

Criterion-referenced test interpretation provides the instructor with precise information concerning the progress the student is making toward the instructional objective. Had the medical trainees discussed in the example above been expected to perform against criterion-referenced standards, none would have been considered as having mastered the objective. The trainees could have then been recycled through the instruction until they succeeded in performing the operation.

It is suggested that an adequate set of criterion-referenced test items be developed for each instructional objective, and that these items be used as the evaluation instrument for the competency based program.

Develop Instructional Protocols

The purpose of the protocols is to provide the basis for consistency throughout the state concerning objectives, core information to be taught, and test items to be used to evaluate core competencies for business education programs. This can be accomplished by specifying each of the above, and by providing suggestions concerning instructional strategies, materials, and media that can be used in the business education program. These latter three items provide a valuable tool for teachers while still allowing individual teachers considerable flexibility when designing and implementing lessons for their students. Each protocol could be arranged in the following manner and could contain the following elements:

Topic:

Sequence: Relative position to other objectives in the instructional sequence

Competency Statement:

Component Objective(s):

Core Information: (Definition, procedure statement, rule statement, etc.)

Representative Examples and Practice Exercises:

Available Materials, Media and Other Resources:

Evaluation (test items):

Protocols should be formulated by a joint committee of teachers, other subject matter experts, school administrators, and instructional designers and evaluators.

Disseminate Instructional Protocols

Protocols could be disseminated to all high schools within the state having a business education program. The management plan should include the particulars of how the protocols would be disseminated and how their use could be encouraged, as well as how feedback and suggested revisions and/or additions (particularly to the example and practice-exercise and available resource components of the protocols) could be made.

Implement Instruction and Collect Data

Teachers who have received the protocol will have a valuable tool for use in the design of their own instructional materials. They will be able to decide on the specific instructional material, media and strategies they will employ to teach the objectives specified in the protocols. They may then implement instruction according to the

instructional sequence plan outlined in the protocol, using the materials they have selected. All tests can be integrated into regular testing programs or, as in some states, special time could be set aside by schools for their administration. Testing on component objectives should occur throughout the school year as the objectives are taught. A variety of methods for implementing competency tests could be used. For example, competency tests could be made available at regular intervals for students to take as they feel they are ready. If schools are not [illegible] handle the individualization of schedules, this necessitates [illegible] be employed. In such a plan, entire classes may take [illegible] and special instructional modules may be assigned to students who are found to need them. As the program progresses, individualized modules for high priority and consistently needed objectives should be developed so as to allow for the most efficient supplementation for students who need them. The use of the protocols will make development of individualized modules a very efficient process, and will make possible an organized and possibly even a statewide program of sharing resources for the development effort. A variety of more elaborate and centralized data management, competency profile development and instructional systems could be discussed here. However, they are extremely dependent upon the resources and organizational structure of the state school system, and should properly be suggested only after considerable analysis of the state school system by a team of professionals.

Evaluate and Revise System and Instruction

The final two steps of the proposed model are best discussed together, since it is evaluation data that should lead to revisions of the program.

The basic purpose of the evaluation component in the system is to identify and correct weaknesses, omissions, errors and inefficiencies in the instructional program and its administration and its administrative system. Many things go wrong with instructional programs. Sometimes the materials do not teach the objectives they are supposed to teach, that is, the materials or the teaching methods arenot strong enough or appropriate enough to facilitate the student's learning. Sometimes the materials or teaching methods are unpalatable to students, causing an attitude problem among the learners. Sometimes instructional materials are adequate, but are poorly or inefficiently administered or are, in fact, impractical to administer within the existing classroom environment. And sometimes instructional programs teach irrelevant or outdated things at the expense of relevant, current information and skills. Any of these problems translatesto a waste of resources and a failure to accomplish the instructional goal to one degree or another. As such, they must be accurately and promptly identified and eliminated as soon as possible. A formative evaluation phase of the proposed project is recommended. During this phase, two major kinds of activities, data gathering and revision, should occur. In order to discover the errors and omissions and weaknesses in the program, a vigorous program of data gathering must be carried out so that problems do not remain undiscovered. This program should look at instruction and test items, the use and effectiveness of teacher-developed instruction, the protocol, and the management and implementation plans. Student performance data forms the basic element for such an analysis, however, the attitudes of students, teachers, and administrators should also be considered as valuable data. Following the discovery of problems,there must be a revision system which redesigns

or reshapes those parts of the instructional program that have been shown to need reworking. There are three separate stages of formative evaluation. One occurs during the identification of competencies and involves the validation of competency statements. The second occurs during the development of the competency based test and the materials for the instructional program and involves small group try-out and review by subject matter, instructional development and evaluation specialists. The third occurs on a continuing basis during the implementation of the program, beginning with the very first day of instruction. The third stage seeks to discover incorrect training methods, materials and systems problems that are causing poor or inefficient learning of the course objectives. A continuing program of data gathering, review and updating of the program should be established from the beginning to ensure that the program is self-correcting, that corrections are made only based on the proper data, that review efforts are properly prioritized, and that the program continues to meet the changing needs of students.

IMPLEMENTING THE PROPOSED METHODOLOGY

The proposed program can be implemented in a variety of ways. It can possibly be accomplished with personnel and other resources from within the state public education system, or it can be accomplished by an integrated effort involving teachers, administrators from the state public education system, and a variety of New York business leaders who are assisted by outside consultants or contractors at critical points in the process. Only after careful consideration of the resources available within the state system could a truly practical implementation plan

be developed. However, it is likely that outside help, either in the form of contracted services, consulting, and/or in-service training for teachers and administrators who will conduct the program will be needed. It is likely that these additional resources will be needed to supplement the state's own personnel in order to design the specific activities for each of the steps in the proposed process, and to provide in-service training for teachers and administrators who will conduct each of these steps. It is also likely that additional help will be needed in order to provide the appropriate level of expertise, time commitment, and manpower needed to add specificity to the existing competencies, to develop the instructional objectives, to classify the instructional objectives, and to develop the criterion-referenced tests and instructional protocols to be used in the program. A variety of resource groups are available to the committee for each of these activities, however, let me reiterate that no individual organization should be selected for such activity until data on available personnel, expertise, and time resources have been collected and until an alternative approach and management plan has been selected.

At the risk of seeming presumptuous, and in the face of limited data, the following is proposed as one possible staffing model for the proposed effort. It assumes a cooperative effort by the Statewide Business Education Review Committee, a task force of business education teachers, local school districts and their teachers and administrators, and a contractor or consulting organization with expertise in competency based education, evaluation, and instructional design.

The task force is a critical element in this model. It is the working group that will get the job done and ensure that the program is a practical one for business educators to implement. The task force

could be composed of a variety of personnel from many different backgrounds in order to facilitate broad acceptance. However, it is believed that the broad representation needed to accomplish such an objective is better left in a review role, and probably already exists in the Statewide Business Education Review Committee. Furthermore, the task force will be a working group that will spend considerable time in the appointed tasks. These tasks will revolve around the collection of data, development of competencies and objectives, and design of instructional protocols. It is believed that business education teachers will have the best background for these activities, are more likely to be able to give the time required (if they can be released for this activity), and will provide a vital link to another critical element in the system--the teachers who will eventually implement the system. The plan is that the task force will access a variety of other interested parties and groups in their data collection efforts, and will have their work reviewed by the Statewide Committee. The processes and steps of the proposed model were described earlier. Therefore, the following figure should suffice to present the staffing plan. Figure 2 shows the major activities outlined in the model presented earlier. Some of the major steps have been broken down to more discrete tasks to show the differential staffing of those tasks.

It is assumed that workshops to be presented are action-oriented and, in essence, describe tasks and processes and then move directly to the practical work of completing the tasks. Assistance from the contractor should be provided in terms of demonstrating processes, providing on-site aid during the initial phases of work on any task, and review, feedback, and revision of the product of each activity, as needed.

ACTIVITY	CONTRACTOR		TASK FORCE	LOCAL SCHOOLS	STATEWIDE COMMITTEE	
	Present Workshop	Assist Task Force			Do	Review
I. Develop State & Local Management Plan		X	X			X
II. Identify Competencies	X	X	X			X
III. Validate Competencies						
1. Select sample populations			X			X
2. Develop questionnaire	(X)	X	X			X
3. Conduct interviews/mail questionnaires			X			
4. Analyze data		X	X			X
IV. Develop Instructional Objectives	X	X	X			X
V. Classify Instructional Objectives	X	X	X			
VI. Develop Criterion-Referenced Tests	X	X	X			X
VII. Develop Instructional Protocols	X	X	X	(X)		X
VIII. Disseminate Protocols					X	
IX. Implement Instruction				X		
X. Evaluate System & Instruction						
1. Collect data			X	X		
2. Analyze date		X	X			X
3. Specify needed changes		X	X			X
XI. Revise Protocols		X	X			X

X = participation in activity
(X) = optional participation

FIGURE 2. A POSSIBLE GENERALIZED STAFFING PLAN FOR THE PROPOSED EFFORT.

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A PROPOSED PROCESS FOR DEVELOPING A BUSINESS EDUCATION CURRICULUM

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INTRODUCTION

> The competencies proposed by your committee, are as we all know, significantly different from any existing list of business education competencies. Many are not unique to business education. Consequently, we propose a significantly different process for the development and implementation of a new high school business education program for the State of New York.

Within the next few years the need for newly certified teachers will continue to decrease in most curriculum areas. However, there is an increasing demand for and interest in in-service training (professional development). The recent Federal Legislation authorizing the establishment of teaching centers is an illustration of this trend.

Implicit in the teaching center thrust and the desire of current teachers to receive assistance in updating their competencies is their "felt need" to control their own destiny. They no longer have the need for an "advanced degree," since a majority already hold the masters. They do, however, want to continue to learn and to be challenged in those areas that are of concern to them.

Teachers also want to control the direction, content, and process of their professional development program. There is, therefore, a need

for an easily learned process which will enable a single teacher or a group of teachers to initiate and complete specific professional development projects. One such process is Competency Based Teacher Education.

Competency Based Teacher Education

This concept was initiated in the middle sixty's by the Teacher Corps and has had a checkered acceptance with the upper echelons of the teaching profession. However, the thrust for the concept of COMPETENCY IN EDUCATION is growing, as is the total consumerism movement.

Forty-six states and numerous large cities have initiated or are developing COMPETENCY TESTING as a prerequisitie for graduation from high school. A number of states have also mandated Competency Based Teacher Education programs. It is predicted that this trend will continue to increase. The name of the game may change--but the process of requiring evidence of competency before a student is permitted to leave a class, school, or college will increase.

There are some, such as Carl Grant, who believe that CBE is the most democratic process devised for the development of a viable curriculum. The CBE model described in this report is predicated on Grant's assumption, thus a process can be provided teachers which permits them to become directly involved in their professional development. It also provides a simple, convenient, measurable process that will enable teachers to participate in developing a revised business education curriculum. More importantly, CBE will provide a process which business education personnel at all levels can use to show students, parents, and other publics what the student is supposed to do. It will also

provide evidence of what the students produced during a term. All data provided by the CBE process is objective and is open constantly to public inspection.

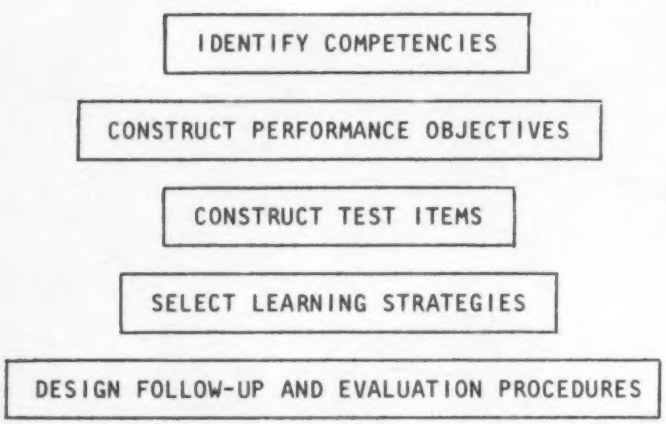
The authors have had the experience of teaching hundreds of pre- and in-service teachers to use their CBE Model. The typical teacher is extremely pleased with the concept and makes use of it after completing a program. Furthermore, when teachers have been directly involved in writing competencies, objectives, test items, and have determined the materials they want to use, there is some research evidence to indicate that their students learn more.

Components of a CBE Model

The proposed CBE model contains 5 major parts. The development of an instructional program is described in Figure 1. This model provides a process for the systematic development of a program. It further provides a systematic process for changing a program to meet changing needs.

Figure 1.

A CBE CURRICULUM MODEL



Materials Available for Learning CBE

The principles and processes for learning each component of this model are available in a series of five self-contained modules. These principles, and the supporting modules, will be described and will be available for the committee's review.

The authors have also developed supporting audio-visual materials for each module. These materials include: six audio/slide tapes; color transparencies; and a Teacher's Guide. This latter item is to be used in group instruction.

We are also in the process of field testing an audio tape, machine scorable test, and a "special section" for each of the five modules. These last three items are designed to enhance the use of the modules in a "correspondence school mode" for part-time community college instructors. It would be possible for us to make such adaptations for use of these materials by business education teachers.

It should be recognized that there are several CBE models; consequently we believe it appropriate to define our concept for each component nd describe briefly the content of each module.

1. Competencies

> A competency is a knowledge, skill, or judgment that will be demonstrated at a predetermined level of proficiency before a student is recommended as a graduate of a specific program.

Competencies grow out of the needs of the individual students, the community, and society and are the evidence of the application of knowledge, skills, and judgments in one's daily life. They give direction to the development of courses or units of learning; they are the unifying factor among the several courses; in a progam they prescribe

the development of performance objectives for each course. Furthermore, they establish the parameters of all the programs found in the school curriculum.

Competencies provide the "big picture" or the gestalt of the program for all concerned. Competencies are the cornerstone of a CBE program.

II. Performance Objectives

> A performance objective is a statement of educational intent that indicates the behavior a student will demonstrate upon successful completion of a learning experience.

Performance objectives precisely describe what students should do to pass a course, or module, or some other unit of INSTRUCTION. One could say that a performance objective is a description of the testing situation when the student passes. They are the building blocks of an organized program. Performance objectives tend to promote more detailed planning and to assure that students will achieve the program competencies.

III. Objective Referenced Testing

> Objective referenced testing is the process of measuring the learner's performance as described in a performance objective and evaluating the learner as indicated in that same objective.

Objective Referenced Tests (ORTS) are written before you begin instruction. They may be used by teachers to allow students to be exempted from part or all of a course. They may also be used to provide students with an orientation to a course. ORTS permit the students to know at the beginning of the term exactly what and how they will accomplish specified objectives to successfully complete

the course. Since ORTS are based upon the performance objectives, the test items can take many forms.

IV. Learning Strategies

> A learning strategy is the proces of structuring effective learning situations which will enable students to achieve specified performance objectives.

CBE has not introduced any "new ways" of teaching. Also, contrary to popular opinion, it is not necessary to have one learning system--modules--in order to have a CBE program. However, in a CBE program the emphasis in each learning activity, teaching strategy, or "method," is directed toward helping student(s) learn a pre-specified objective. One of the major research findings on teaching and learning is that the use of a variety of materials and processes works better for most learners than using only a single process for each individual or class.

V. Follow-up and Evaluation

> A follow-up has been defined as a letter, procedure, or visit, used to increase or reinforce the effectiveness of previous action.

There are no "unique" processes that have been developed to be used exclusively in a CBE program for either the follow-up or evaluation process. Rather, it is the focus of this module that each classroom teacher might be involved in the processes. The module describes some simple processes to help teachers follow-up and evaluate the effectiveness of their CBE components. CBE is a systematic process for curriculum design. Part of any system provides for the collection and use of information in changing any other part of the system.

A Process for Using the CBE Model

It is assumed that the person who will ultimately make the greatest impact on a student's performance is the classroom teacher. It is

further assumed that most teachers are professionals and desire to improve their effectiveness. Consequently, the thrust of this proposal is to place the opportunity for and the responsibility to develop the new business education curricula in the hands of the classroom teachers.

Obviously, this is no simple task. Nor can it be accomplished without a great deal of leadership and support from groups such as: the State Department of Education, the business community, the officers of the teachers unions, business teacher educators, and administrators. However, it is feasible--and we have had the opportunity to use this process successfully in several "real life situations."

It is proposed that personnel be trained to use the CBE model. As a distinct process of learning each facet of the Model, they would also produce products for each of those modules. For example, when learning the what and why of competencies, it would be possible to develop a set of competencies for each of the three proposed curricula. Or, it might be possible to develop a set of generic competencies for all curricula and have other groups do the specialized competencies for each of the three curricula.

The specific personnel should contain representatives of all the above groups, and possibly others, but it is recommended that the majority of the persons in any design group be classroom business education teachers. It may be that the first step would be to get a group to take the list that was submitted to us and have them recast into a set of competency statements. These statements could then be modified, added to, or deleted. This step would provide much more

cohesiveness to a state wide curricula if it were accomplished by a committee with that specific charge.

As indicated previously, the list we received is not all competency statements. We did not have the time nor the presumption to take your list and translate it into competency statements. However, in the following section we have taken a basic concept found in this list and written an illustration for the first three components of our model.

Application of the CBE Curriculum Design Model to Business Education

We have used your statement "original composition," which appears on page two of your list under the main heading of Language Arts (Written communications) and cast it in a competency format. Following that step, we have written a sample performance objective, and a sample objective referenced test item that tests the performance objective. We believe that this is the type of work that could be accomplished by a cadre of professional business educators for your entire business education curricula. As indicated, we do not believe there are any new or special processes required for LEARNING STRATEGIES or FOLLOW-UP AND EVALUATION in a CBE program; thus no examples have been given.

APPLICATION OF THE CBE CURRICULUM DESIGN MODEL TO BUSINESS EDUCATION

Competency (sample)

The student will compose standard office communications.

Supporting Performance Objectives (sample)

1. Given a case study situation which describes the purpose of a needed written communication, the student will determine the appropriate communication format (e.g., business letter, memo) and write the document. The communication must:

a. include all necessary information
b. be clear and concise
c. be correctly spelled
d. be correctly punctuated
e. demonstrate correct sentence structure and/or paragraphing
f. demonstrate the correct form for the type of document written

2. Given oral directions and required forms, the student will complete the forms so that:

   a. the original directions are exactly followed
   b. all spelling, punctuation and sentence structure is complete

3. Given a handwritten rough draft of a report with errors in it, the student will type a final copy of the report. This final copy must:

   a. have identified and corrected all spelling and grammatical errors
   b. reworded any sentences that were not clear
   c. follow correct typing procedures

4. Given a draft of a report (edited type written), the student will type a final copy of the report. The final copy must:

   a. have identified and corrected all spelling and grammatical errors
   b. reworded any sentences that were not clear
   c. follow correct typing procedures

Objective Referenced Test (sample)

Student's Name _____ Evaluator _____
Date Passed _____

FIRST | READ THIS | Problem: You are a secretary in an office and your boss says that the Red Cross Bloodmobile is coming Thursday of next week. They'll be in Room 22; A and B all day. You're supposed to let everyone know that they can go there to give blood any time during the day, and that the company hopes as many people will donate as possible.

SECOND | NOW ANSWER THE FOLLOWING QUESTION |

What kind of document would you write to get this information out?

I would write a _____.

THIRD

NOW WRITE

On another piece of paper write a rough draft of the document.

FOURTH

NOW READ YOUR DRAFT AND CORRECT ALL ERRORS. CHECK SPELLING, PUNCTUATION, SENTENCE STRUCTURE, AND THE FORMAT.

FIFTH

NOW TYPE YOUR DOCUMENT. MAKE SURE ALL YOUR TYPING ERRORS ARE ERASED AND CORRECTED.

Student's Name _____

Given a case study situation which describes the purpose of a needed written communication, the student will determine the appropriate communication format (e.g., business letter, memo) and write the document. The communication must:

a. include all necessary information
b. be clear and concise
c. be correctly spelled
d. be correctly punctuated
e. demonstrate correct sentence structure and/or paragraphing
f. demonstrate the correct form for the type of document written

---

To the Evaluator:

Analyze the typed document and answer the following questions in relation to that document:

	Yes	No
1. Was the appropriate type of document format selected?	___	___
2. Is all the necessary information included?		
a. What will be happening?	___	___
b. The date of the event?	___	___
c. The time of the event?	___	___
d. The location?	___	___
e. An encouragement to participate?	___	___
3. Is the document written clearly and concisely (e.g., Are sentences as brief as possible)?	___	___

If not, comment:

	Yes	No	Not Applicable
4. Are there no spelling errors?	___	___	___
5. Are the following correctly used?			
a. periods	___	___	___
b. question marks	___	___	___
c. commas	___	___	___
d. capital letters	___	___	___
e. semi-colons and colons	___	___	___
6. Is the sentence structure correct?			
a. complete sentences?	___	___	___
b. noun-verb agreement?	___	___	___
c. no structure problem? (e.g., no dangling modifiers)	___	___	___
7. Are the paragraphs properly constructed (e.g., topic sentence and supporting personnel)?	___	___	___
8. Is the document typed in the correct form?	___	___	___

Evaluator's Additional Comments:

Evaluator's Response:

All "yes's" or "not applicables" must be checked to pass.

_____ Pass _____ Recycle

Conclusion

We are recommending that consideration be given to using a CBE system as your model for developing a new business education curricula for your state. We believe that, because of the unique nature of your proposed competencies, a unique model and process must be used. Therefore, we further recommend that a cadre of classroom business teachers, with the support of other identified personnel, be given training in this CBE Model and given the chance to develop a program that they will support and teach effectively.

Appendix A

Teacher Developed Competencies and Objectives

THE DETROIT PUBLIC SCHOOLS

ESSA Pilot Project

PRACTICAL LIFE SKILLS: High School Competencies*

The student will:

CONSUMER ECONOMICS

1. Use the steps in the decision-making process.**
2. Demonstrate management of financial affairs.
3. Analyze and interpret documents and forms.
4. Demonstrate buying principles.
5. Recognize the availability of natural resources.
6. Use the metric system.

COMMUNITY RESOURCES AND TRANSPORTATION

7. Investigate, compare, and contrast various modes of transportation.
8. Examine health services.
9. Use the media as a source of community information.
10. Investigate social services available to the community.

HEALTH

11. Apply the principles of safety and first aid.
12. Identify the use and abuse of substances.
13. Explain the process of human growth and development.

OCCUPATIONAL KNOWLEDGE

14. Demostrate those skills necessary to get and hold a job.
15. Recognize the benefits and limitations of various occupations.

GOVERNMENT AND LAW

16. Examine how the rights and responsibilities of citizenship affect the individual.
17. Recognize the methods needed to secure rights.
18. Examine governmental agencies that provide services.

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*These competencies were developed by teachers of the Detroit Public Schools at a special workshop on May 6-7, 1977.

**The steps in the decision-making process are: 1) identify the goal; 2) identify alternatives; 3) gather information; 4) evaluate alternatives; and 5) make a choice.[1]

1. Jelly, Herbert M, and Herrmann, Robert O., The American Consumer--Issues and Decisions, New York: Gregg Division, McGraw-Hill Book Company, 1973, pp. 27-29.

THE DETROIT PUBLIC SCHOOLS

ESAA Pilot Project

PRACTICAL LIFE SKILLS: High School Performance Objectives

1. With a choice of products and/or services, the student will examine information from three different stores for comparison shopping. The information will include:

    a. name of the product/service
    b. cost of the product/service
    c. special features of product/service
    d. policies of store for product/services

    The student will then decide which product to purchase, when to purchase it, and give reasons for the choice.

2. Given types of insurance and a typical family situation, the student will select five kinds of insurance appropriate for a family and recommend the maximum amount of insurance dollars the family should spend.

3. Given a list of advertising techniques and special advertisements, the student will select and identify examples of advertising techniques used to influence consumer choices.

4. Given a product for purchase and a research article from a consumer publication, the student will select a specific brand of the given product. This selection is to be based on data obtained from a research publication.

5. Given a major purchase, the student will compile the following information:

    a. amount of the purchase, type and length of contract
    b. four sources of credit with interest rates
    c. total cost from each source
    d. document decision of a major purchase

6. From two selected credit laws, the student will:

    a. explain the intent of the laws
    b. explain how the consumer may apply each law for greater protection

7. Given a designated income, the student will develop a budget to meet a designated income for a month. The following should be considered:

    a. fixed expenses
    b. variable expenses
    c. savings

8. Given appropriate data, the student will complete the following tax forms accurately: federal, state, and city.

9. The student will identify at least three different types of financial institutions within the community and list services offered by each.

10. Given at least three economic principles of wise buying, the student will identify five factors to consider when buying and maintaining real and personal property.

11. Given a list of consumer problem situations, the student will identify community agencies that deal with consumer problem situations giving the:

    a. name and location
    b. function
    c. steps for contacting each agency

12. The student will list five consumer products or practices, the hazards they cause to the natural environment, and possible prevention solutions.

13. The student will change a list of metric units to other metric units within the metric system.

14. Using metric measurement devices, the student will correctly measure a set of objects.

15. Using a variety of transportation schedules, price lists, and accommodation information, the student will devise a plan for a trip using cost and time limitation. The plan will include:

    a. amount of money for food, accommodations (i.e., hotel, motel, or YMCA/YWCA), transportation, tips, transfers, and personal spending
    b. a listing of round-trip arrival and departure times
    c. budget amount

16. Given various operating situations involving motor vehicles and bicycles, the student will identify and analyze regulations and operating procedures according to state and local guidelines involving motor vehicles and bicycles.

17. Given a variety of maps, the student will use the symbols and abbreviations on a map to:

    a. locate designated places
    b. recognize types of terrain
    c. identify appropriate routes between two points
    d. determine distance between two points

18. From a list of available community services and selected hypothetical situations, the student will select and state services most appropriate for that situation:

    a. name and phone number
    b. location
    c. specific services rendered

19. From a list of community informational resources (i.e. library, TV, etc.), and a series of case studies, the student will select an appropriate service that could be utilized to resolve the case.

20. The student will correctly identify a set of national and international signs.

21. Given various emergency situations, the student will solve these emergency situations by:

    a. indicating the proper authorities to contact, and
    b. information to be communicated

22. Given emergency situations, the student will recognize basic first aid procedures. The evaluation will be based on the ability to:

    a. identify the emergency
    b. notify proper authority
    c. identify first aid techniques

23. Given a list of 20 potential safety hazards, the student will select five safety hazards, the effects, and the ways of correcting the hazards.

24. Given a list of various substances, the student will describe the effects of various substances, their accepted uses, common abuses, and the possible effects of abuse.

25. The student will identify the symptoms of one chronic, one communicable, and one hereditary disease.

26. The student will identify factors contributing to individual nutrition. This identification will include nutritional needs and nutritional resources.

27. Given a case study, the student will describe the physical changes and psychological effects which occur in the female during pregnancy. The description will include:

    a. a minimum of three physical changes
    b. a minimum of three psychological effects
    c. a minimum of five pre-natal care needs

28. The student will identify the physical and emotional developments that occur in an individual during the stages of adolescence and describe methods to ease the transition to adulthood. The description will include:

    a. physical developments that occur during the stages
    b. emotional developments that occur during the stages
    c. methods for easing the transition to adulthood

29. The student will identify the stages of child development and the basic child rearing practices. This identification will include:

    a. general ages of stages
    b. general physical changes in those stages

30. Given a hypothetical situation, the student will complete a job application form according to the following specifications:

    a. written neatly and legibly in ink or typed
    b. free from spelling errors
    c. completion of all applicable spaces

31. Given a job interview situation, the student will analyze and identify acceptable and unacceptable behavior. The following points should be considered:

    a. attitude
    b. punctuality
    c. dress
    d. behavior
    e. communication techniques

32. Given an occupational cluster, the student will identify sources of information about employment and differentiate between various employment agencies. The evaluation will be based on:

    a. the specific services provided
    b. financial obligations to the agencies
    c. geographical location of agencies

33. Given job situations, the student will list the acceptable and unacceptable behaviors in retaining a job. The list will include:

    a. attitude
    b. punctuality
    c. dress
    d. behavior
    e. communication techniques
    f. entry-level skills

34. The students will rank several careers of their choice after describing and assessing their financial & non-financial benefits. They will use established sources of information about careers. Their description of each career should include:

    a. reason for choosing
    b. list of benefits
    c. job market demand
    d. job advancement

35. Using the included occupational cluster chart, the students will describe and assess occupations of their choice. The description should include:

    a. job market demand
    b. job advancement
    c. salary and fringe benefits
    d. geographical location

36. Given information on the election process, the student will:

    a. read and sign a nominating petition
    b. fill out a sample voter registration form
    c. read and sign an initiative petition
    d. vote on a sample ballot

37. Given a series of situations, the student will list legal rights and responsibilities involved in each.

38. Given four situations requiring legal or governmental services or agencies, the student will list:

    a. the specific service or agency needed
    b. the location of the service or agency
    c. the function of the service or agency

39. Given a list of legal documents, the student will identify the purpose of a minimum of ten.

40. Given a controversial issue, the student will compose a letter to be sent to the state representative. The letter will include the following:

    a. the issue
    b. a personal stand on the issue
    c. recommended solution for the issue
    d. reasons for the recommended solutions

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THE DETROIT PUBLIC SCHOOLS

ESSA Pilot Project

PRACTICAL LIFE SKILLS Revised List of Modules with Titles

1. The Altairs Learn When and Where to Make Decisions
2. The Altairs Learn About Insurance
3. The Altairs Learn About Advertising Techniques
4. The Altairs Learn About Consumer Research
5. The Altairs Learn About Credit
6. The Altairs Learn About Consumer Laws
7. The Altairs Learn About Income and Budgeting
8. The Altairs Learn How to Complete Their City, State, and Federal Tax Returns
9. The Altairs Learn About Financial Institutions
10. The Altairs Learn About Wise Buying Practices
11. The Altairs Learn About Community Agencies
12. The Altairs Learn About Protecting the Environment
13. The Altairs Learn About the Metric System
14. The Altairs Learn About Metric Measurement Devices
15. The Altairs Learn About Planning A Trip
16. The Altairs Learn About Driving Procedures
17. The Altairs Learn About Map Reading
18. The Altairs Learn About Community Agencies
19. The Altairs Learn About Community Resources
20. The Altairs Learn About National and International Signs
21. The Altairs Learn To Handle Emergency Situations
22. The Altairs Learn About First Aid and Emergencies
23. The Altairs Learn About Safety Hazards

24. The Altairs Learn About Substance Use and Abuse

25. The Altairs Learn About Common Diseases

26. The Altairs Learn About Nutritional Factors

27. The Altairs Learn About Physical Changes and Psychological Effects During Pregnancy

28. The Altairs Meet Earth's Adolescents

29. The Altairs Learn About Child Growth and Development

30. The Altairs Complete a Job Application

31. The Altairs Learn About Job Interviews

32. The Altairs Learn About Community Affairs

33. The Altairs Learn About Retaining a Job

34. The Altairs Learn About Choosing a Career

35. The Altairs Learn About Selecting an Occupation

36. The Altairs Learn How to Vote

37. The Altairs Learn About Legal Rights and Responsibilities

38. The Altairs Learn About Services and Agencies that can Help with Problems

39. The Altairs Learn About Legal Documents

40. The Altairs Learn To Deal with Controversial Issues

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BUSINESS TEACHER EDUCATION IN NEW YORK STATE

Hobart H. Conover

Business education is currently offered in approximately 1100 public and private secondary high schools and 150 junior high schools in New York State. At the semiprofessional level, business and commerce technologies are taught in 23 proprietary schools which offer the Associate in Occupational Science degree and in approximately 60 nondegree-granting registered proprietary school programs. Associate or higher level programs in business organization, operation and management are available in approximately 80 two- and four-year public or independent colleges and universities, while approved business teacher preparatory programs are located in 24 colleges and universities. The total number of teachers engaged in these various instructional programs approximates 12,000. See Table 1 on the next page.

Annual turnover of business teachers at the secondary school level over the next ten-year period is estimated to range between 350 and 450. This represents an annual turnover rate of approximately eight percent. A similar rate of turnover applied to the two-year colleges would involve the annual replacement of 125 teachers; and in the proprietary business schools, approximately 116 vacancies might be expected. Altogether this yields a minimum of 500-600 positions needed annually for replacement. Recognizing that many teachers employed in these programs other than at the high school level hold degrees in business administration as well as business

TABLE I

Business Faculties*

Type Institution		Number
Secondary Schools		
Public	5200	
Private	320	
		5520
Proprietary Business Schools		
A.O.S. Schools	650	
Registered	800	
		1450
Two-Year Colleges		
NYC Community Colleges	575	
Agricultural and Tech.	465	
Community Colleges	470	
E.O.C.	50	
		1560
Four-Year Colleges and Universities		
Business Education	250	
Business Administration	2500	
		2750
Continuing Education		
Business Education	725	
		725
TOTAL FACULTY COUNT		12,005

*All figures have been rounded to represent approximations as of 1978.

education, a conservative approximation of annual business teacher openings in New York State might be expected to be at the 500 to 600 range.

Program Locations

Of the 24 approved teacher preparatory programs for business education in New York State in 1978, 17 were approved to offer the provisional form of the business education certificate or business and distributive education certificate. Three institutions were approved to offer one or the other of these two certificates in only the permanent form; seven were approved to offer both the provisional and permanent forms of the business education certificate; and seven were approved to offer both the provisional and permanent form of the business and distributive education certificate. See Table II on the next page.

Teachers who hold the business education certificate are certified to teach any of the business subjects offered in the secondary schools even though they may not have had preservice preparation in all subject areas. An employer, in interviewing a candidate holding this certificate, must make certain that the areas of preparation do in fact meet the job specifications. This certificate, furthermore, does not prescribe practical related work experience as a prerequisite. There is reason to believe that this certificate might be strengthened by requiring practical work experience and by specifying on its face the principal areas of business education in which the candidate specialized.

TABLE II

Teacher Education Programs

Business and Distributive Education

College or University	Bus. Ed.	Business & Dist. Ed.
Alfred	B	
Canesius	B	
CUNY-Baruch	A	A
CUNY-Lehman	B	
St. Rose	B	
Columbia--Teachers	C	C
Daemen College	B	
D'Youville	B	
Hofstra	A	A
LIU Brooklyn Center	A	A
Nazareth College	B	
New York Institute of Technology	B	B
New York University	A	A
Niagara University	B	
Pace University	A	A
Pace University Westchester	B	B
Pace University White Plains	B	
St. Bonaventure University	B	
St. Francis College	B	
St. John Fisher College	B	
SUNY--Albany	A	A
SUNY--Buffalo	C	A
SUC--Buffalo	A	C
Syracuse University		B

Recapitulation

Program Type	Bus. Ed.	Business & Dist. Ed.	Total
Type A (Both)	7	7	14
Type B (Provisional)	14	3	17
Type C (Permanent)	2	2	4
TOTALS	23	12	35

*Source: Division of Teacher Education and Certification
State Education Department, Albany, NY (1978)

Teachers who hold the business and distributive education (occupational) certificate are certified to teach both business and distributive education subjects in the secondary schools. A minimum of one calendar year of work experience is required for this certificate. As in the case of the business education certificate, there is reason to believe that the certificate would be strengthened if on its face the particular areas of specialization were clearly designated.

Several colleges and universities graduate fewer than five prospective business teachers annually from their approved programs. Faculty and financial limitations under these circumstances often prevent such institutions from providing the bredth of learning desirable for any business teacher candidate. There is considerable doubt whether programs of this magnitude should continue to be approved.

Without a doubt, there is apt to be much greater intellectual challenge when a business education faculty is comprised of several members. This is especially true of graduate-level study where the student should benefit from varied faculty backgrounds. Nationally funded and other financially aided research and experimentation also add to the intellectual development of students and staff when a college or university, itself, has made a substantial commitment to the particular program.

Fewer and more broadly based business education programs, strategically located throughout the State, could greatly enhance the strength and reputation of business education and of their graduates.

Program Alliances

Business teacher preparation will require closer alliances between the two- and four-year college components as additional four-year colleges and universities reject skill development courses in shorthand, office machines operation, and typewriting as suitable upper-division content. Prospective business teachers in increasing numbers will find it necessary to acquire these skills at the two-year college level or be able to demonstrate the competency as a result of prior or independent study and challenge examinations.

Carefully planned program ties must be established between the parent college or university and neighboring two-year colleges if teachers of the skill business subjects are to be available in sufficient numbers. Typewriting, in particular, is a component of the teaching assignment of most first-year business teachers (See Tables III anad IV on the next pages), and should be included in their preservice preparation. Business education in secondary schools of all sizes will be badly handicapped unless preservice training of business teachers in the skill subjects in guaranteed.

Alone, even the program ties suggested will not guarantee good teacher preparation unless the senior colleges and universities are willing to continue to provide laboratories where prospective business teachers are able to put into practice methodologies essential to the effective development of office skills. At least one laboratory in every approved business teacher program should be equipped to permit prospective teachers to develop teaching skills in shorthand, office

TABLE III

First Year Business Teachers

Teaching Assignments*

1976-77

Subject	Number of Persons Teaching
Typewriting I	46
Business Mathematics (and Applied)	30
General Business	29
Shorthand I	23
Business Law	23
Personal Typewriting	21
Bookkeeping and Accounting I	16
Office Practice	8
Secretarial Practice	8
Typewriting II	6
Shorthand II and Transcription	4
Bookkeeping and Accounting II	3
Recordkeeping I	3
Consumer Education	3
Automatic Data Processing	1
Business Management	1
Business Communication	1
Exploratory Business	1
Integrated Business Practice	1
Twelfth Year Vocational Business Practice	1
Accelerated Bookkeeping	1

*Based on Basic Educational Data System records and compiled by Mr. Goffery Obi, SUNY doctoral candidate.

TABLE IV

Comparison of the Most to Least Commonly Taught Subjects in Small, Medium, and Large Senior High Schools; and the Rate Percents of First Year Business Teachers that Taught These Subjects

	Small SHS		Medium SHS		Large SHS	
Rank	Subject	%		%		%
1	Typewriting I	16	Typewriting I	19	Typewriting I	21
2	General Business	15	General Business	11	Business Mathematics	14
3	Business Mathematics	15	Business Mathematics	10	General Business	8
4	Business Law	10	Manual Shorthand I	8	Manual Shorthand I	8
5	Bookkeeping/Accounting I	10	Personal Typewriting	6	Personal Typewriting	8
6	Manual Shorthand I	8	Office Practice	5	Business Law	7
7	Personal Typewriting	8	Secretarial Practice	5	Bookkeeping/Accounting I	5
8	Business English	3	Bookkeeping/Accounting I	4	Recordkeeping I	3
9	Recordkeeping I	2	Manual Shorthand II	3	Manual Shorthand & Trans.	3
10	Manual Shorthand & Trnas.	2	Manual Shorthand & Trans.	3	Office Practice	3

Source: BEDS data; compiled by Ms. Patricia Callahan, SUNY Graduate Student (Spring 1976)

machines, and typewriting. This laboratory (or laboratories), furthermore, should be sufficiently large and equipped to accommodate a model office and a variety of office-type simulations. Many of the "core" competencies of entry-level office workers identified initially by this Committee are attainable only through experiences in a "work-like" environment. Preservice teacher preparation must provide the opportunity for students to organize and manage instruction in these learning modes. Teacher educators must also make a special effort to emphasize techniques for developing and measuring these core competencies.

Preparation for Community-Centered Learning Activities

In addition to the laboratory training already described, prospective business teachers must be prepared to help their students develop the "core" competencies through a variety of community-based learning activities. Social-civic community responsibilities, cooperative work experience, and many projects included as part of a youth leadership organization program make use of community specialists and business resources as part of the learning scheme. All business teachers should acquire experience in the organization and operation of community-centered learning activities before they are permanently certified.

Preparation of Two-Year College, Adult Education, Proprietary School and Supervisory Personnel

For the most part, two-year college, adult education, and business school teachers have not been specifically prepared for these instructional levels. Teachers in these programs are usually drawn from a variety of academic and business experiences. Teachers in the adult programs, furthermore, are apt to be employed as full-time

day school teachers or full-time business and professional workers.

Enrollments at most of these levels continues to expand and the need for teacher preparation more closely allied with the student maturity and program content has become increasingly evident. Selected teacher preparatory institutions should be identified that will direct their primary efforts to the preparation fo staff for these levels.

The development of administrative and supervisory personnel for business education programs should also be centered in selected colleges or universities. This step is particularly desirable when the program is designed as post-Master Degree study.

Education Department/Field Cooperation

Program standards and design as related to teacher education should stem from the combined efforts of several groups. While efforts toward this objective have been evident in the past, increased cooperation must be contemplated in future program modification and teacher certification.

Tremendous strides forward have resulted from the consortia required as part of each competency-based teacher preparatory program. But the professional associations, teacher preparatory institutions, and school administrative personnel should be called upon regularly to provide input to any institutional program change or modification in Department Regulations pertaining to teacher certification.

The Bureau of Business Education has conducted conferences annually with representatives of the four-year teacher education institutions. These conferences have proven invaluable communication

linkages as well as means for focusing on common concerns and new directions. In the future, representatives of the feeder two-year colleges should be incorporated into this communication system.

Recommendations and Conclusions

Several tabulations are provided as part of this paper to assist the reader with the recommendations that follow. Hopefully the recommendations will serve as guides in the future development of business teacher programs in New York State.

1. An effort should be made to reduce the number of approved business teacher preparatory programs at the undergraduate level and to establish guidelines for minimal standards for those approved. The number of approved programs should be geographically dispersed to serve the entire State and to match as closely as possible the annual needs for business educatiors at the various instructional levels.

2. As undergraduate competency-based business education programs are approved, ties should be firmly established between neighboring two- and four-year colleges that will insure that business teachers are provided training for teaching the office skills including shorthand, typewriting and basic office machines.

3. No undergraduate competency-based program for business teacher should be approved which does not prepare a teacher for at least two of the principal career streams in business and/or business and distributive education. (See also recommendation 6 below.)

4. Common Standards--

   A. An undergraduate program in business teacher preparation should include, in addition to general, liberal, and professional studies, experiences which provide prospective teachers with knowledge of our economic system, business organization.

   B. Undergraduate business education teacher preparation programs should cover the underlying philosophy and objectives of vocational education and of occupational technology.

C. An undergraduate program should include studies and provide experiences which develop the prospective teacher's ability to:

(1) plan and administer business education experiences including work experience.

(2) meet the unique learning needs of handicapped and educationally disadvantaged students in an environment where they are instructed together with the general population.

(3) conduct meaningful survey activities, including surveys of business offices, follow-up studies of business graduates, and surveys of job trends that will enable teachers to offer current occupational information to both male and female students.

(4) plan and implement a co-curricular business education youth organization designed to develop student leadership, human relations and on-the-job social skills.

(5) develop and utilize a variety of instruments or techniques to evaluate various facets of student achievement.

5. Provisional certification should develop competence of ALL prospective business teachers in the following subject areas:

(1) Business Communication
(2) Typewriting
(3) Business Mathematics
(4) Business Law
(5) Recordkeeping/Bookkeeping/Accounting
(6) Basic office machines including adding/calculating machines, reprographic equipment, and data-entry devices

In addition, all prospective business teachers should be provided the opportunity to study the operation of modern office information systems and to acquire what might be described as "computer intelligence."

6. Provisional certification should develop specialized competence of business teachers in two or more of the following areas depending upon local need:

(1) Accounting, data processing and general clerical competencies.

(2) Secretarial (including word processing) and office administration.
(3) Marketing distribution.

7. Permanent certification should include studies and understandings of the role, organizational structure and function of public and private comprehensive high schools; specialized vocational high schools including area occupational centers; and two- and four-year colleges.

8. Permanent certification should include studies which will prepare business teachers to organize and teach occupational and personal-use business courses for both secondary level students and adults.

9. Provisional certification should provide business teachers with appropriate satisfactory occupational experiences in one or more of the occupations. This requirement should apply to all forms of business and or business and distributive education teacher certificates.

10. Permanent certification should develop teacher competence in the techniques of modern curriculum development.

11. Permanent certification should insure teacher understanding of significant research in the area of business education and techniques for informal classroom research.

12. The two forms of business teacher certificates Business Education; Business and Distributive Education [Occupational] should be retained with the requirement that both forms of the certificate include practical work experience. A college or university should not be approved to offer the Busines and Distributive [Occupational] certificate that is unable to provide a broad experience in marketing and distribution.

13. Particular attention should be directed in all business teacher programs to the development of an awareness of the "core" competencies delineated earlier by the Committee and the ability to use teaching/learning methodologies which foster the development of these competencies in all business education graduates.

14. Permanent certification should insure that the business teacher is well grounded in procedures and practices for on-going program evaluation and updating.

15. Inservice education should be provided business and other secondary school teachers through regional teacher development centers. Selected colleges or universities might be designated to plan and implement teacher development activities essential to the maintenance of current business education programs. Such centers should, if possible, be assisted financially and be evaluated for effectiveness by both school administrators and the State Education Department.

16. At least three appropriately located colleges or universities should be designated to provide the specialized training required of persons who will serve as business department chairpersons or city directors of business and distributive education.

17. At least two appropriately located colleges or universities should be encouraged to provide training required of persons who will serve as business department chairpersons or city directors of business and distributive education.

18. At least two universities should be approved to provide the advanced degree (Ed.D or Ph.D.) in business education.

19. Strong linkages should be maintained between the Division of Teacher Education and Bureau of Business Education and heads of teacher preparatory programs of varying sizes to make certain there is focus on common objectives and that input is provided regularly for program updating and/or the modification of teacher certification.

20. There should be evidence of strong commitment in terms of permanent professional staff and breadth of program by any college or university approved to provide business teacher education at the undergraduate and/or graduate levels.

21. Permanently certified teachers should have the opportunity on an on-going basis to update their knowledge and skills by periodic exposure to contemporary business practices.

22. Business education teacher preparation should include exposure to effective vocational counseling techniques and develop skills to assist students in realistic career planning.

23. Strong linkages should also be maintained between the Division of Teacher Education and Bureau of Business Education and professional associations in the business education field to provide input on curricular and certification issues.

Certain of the recommendations contained in this report should undoubtedly be considered potential input to the State Education Department as changes are considered for business teacher program development and certification. Other recommendations would more likely be considerations of college or university consortia when establishing standards for competency-based teacher education programs at the time of their reapproval.